




Utah County
HEART of UTAH

UTAH COUNTY AGRICULTURE TOOLBOX

Promoting and Sustaining Agriculture in Utah County



**Envision
Utah** How we grow matters.



Utah County Agriculture Toolbox Steering Committee Members

The stakeholder group included representatives from local and state government, representatives from nonprofit organizations, farmers, land owners, business owners, academics, and influential figures from other sectors of the community. These stakeholders were selected based on their backgrounds, the expertise they brought to the process, and the influence they have on their communities.

Commissioner Larry Ellertson

Utah County

Commissioner Bill Lee

Utah County

Commissioner Greg Graves

Utah County

Senator David Hinkins

Utah State Senate

Don Wadley

Alpine Conservation District

Dustin Rowley

Timp-Nebo Conservation District

LaDonn Christianson

Land Owner

Senator Margaret Dayton

Utah State Senate

Representative Mike McKell

Utah State House of Representatives

Richard R. Wilkerson

Wilkerson Farm

Ryan Creer

Timp-Nebo, Utah County
Conservation District

Scott Ericson

Utah Department of Agriculture &
Food

Sid Smart

Natural Resources Conservation
Service

Rex E. Larsen

Larsen Family Farms

Sterling Brown

Utah Farm Bureau

Utah County Agriculture Toolbox Stakeholders

Bryce Armstrong

Utah County Planning

David Hanson

Natural Resources Conservation
Service

Dean Miner

USU Extension Service

Dennis Marker

City of Santaquin

Gene Shawcroft

Central Utah Water Conservancy
District

Mark Gibbons

Farm Service Agency

Alan Matheson

Utah Department of Environmental
Quality

Mayor Bert Wilson

City of Lehi

Bill Peperone

Provo City

Bracken Davis

Utah Department of Agriculture &
Food

Brandon Stocksdale

Orem City

Brenda Wadley

Wadley Family Farm

Cameron Gunter

PEG Development

Casey Houwelings

Houwelings' Tomatoes

Calvin Crandall

Utah County Farm Bureau

Mayor Christopher Pengra

Eagle Mountain City

Senator Curt Bramble

Utah State Senate

Curtis Rowley

Cherry Hill Farms

Daniel Gunnell

Timp-Nebo Conservation District

Representative Dave Lifferth

Utah State House of Representatives

Dave Conine

USDA

Dave Robbins

Utah County Farm Bureau

David Ure

Summit County Council

Deanna McCoard

McCoard's Garden Center

Debbie Cloward

Allred Orchards

Becky Ellsworth

Allred Orchards

Don Jarvis

Provo City

Mayor Don N. Watkins

City of Alpine

Don Sleight

AgReserve Inc.

Evan Curtis

Utah Governor's Office of
Management and Budget

Mayor Fred Jensen

Town of Goshen

Garrick Hall

Utah Farm Bureau

Mayor Gary Gygi

City of Cedar Hills

George Handley

BYU

Mayor Hal Shelley

Elk Ridge City

Mayor Howard Anderson

Town of Cedar Fort

Jake Harward

Harward Farms

Mayor James Hadfield

City of American Fork

Jason Bateman

Bateman Dairy

Mayor Jeff Acerson

Lindon City

Mayor Jim Miller

City of Saratoga Springs

John Bennett

Utah Quality Growth Commission

Mayor John Curtis

City of Provo

Julie Clifford

Clifford Family Farm

Kalei Robbins

Utah County Farm Bureau

Katelyn Robbins

Payson FFA Chapter

Representative Keven Stratton

Utah House of Representatives

Kim Christy

SITLA

Mayor Kirk Hunsaker

City of Santaquin

Kurt Bunnell

Bunnell Farms

Representative Lee Perry

Utah House of Representatives

Mayor Lonny Ward

Town of Genola

Senator Mark Madsen

Utah State Senate

Mayor Mike Daniels

Pleasant Grove City

Mike Larsen

Natural Resources Conservation
Service

Nathan Ivie

Ivie Ranch

Senator Ralph Okerlund

Utah State Senate

Mayor Randy Brailsford

Salem City

Mayor Randy Farnworth

Town of Vineyard

Randy Parker

Farm Bureau

Rex Larsen

Larsen Family Farms

Mayor Richard Brunst

City of Orem

Richard C Wilkerson

Wilkerson Farm

Richard L Behling

Behling Insurance Agency

Mayor Rick Moore

Payson City

Robert Redd

Cattle Rancher

Rona Rahlf

Utah Valley Chamber of Commerce

Scott McLachlan

River Jordan Mink Farm

Scott Schmidt

Fruit Grower

Shawn Miller

BYU

Shawn Seager

Mountainland Association of Governments

Sterling Rees

US Department of Agriculture

Mayor Steve Lauritzen

City of Woodland Hills

Mayor Steve Leifson

City of Spanish Fork

Taylor Oldroyd

Utah Central Association of Realtors

Val Hale

Utah Governor's Office of Economic Development

Wayne Bradshaw

Utah Department of Agriculture & Food

Senator Wayne Niederhauser

Utah State Senate

Wes Crandall

Farm Bureau

Michael D. Larsen

Natural Resources Conservation Service

Matt Packard

Central Bank

Michael Cundick

Artists for Local Agriculture

Britton Ercanbreck

Orchard Owner

Warren Peterson

Farmland Reserve Inc.

Charity Jessop

Utah Open Lands

Tonia Fuller

Utah Woolgrowers Association

Jenn Harrison

Dairy Council of Utah & Nevada

Utah County Agriculture Toolbox Donors

The City of Provo

The Nature Conservancy

Utah County

**Central Utah Water
Conservancy District**

Utah Farm Bureau

**Utah Department of
Agriculture and Food**

Central Bank

**Mountainland Association of
Governments**

**Dairy Council of Utah and
Nevada**

Utah County Farm Bureau

Allred Orchards

Farmland Reserve Inc.

TABLE OF CONTENTS

Strategies for agriculture in Utah County are organized under two major goals. The strategies are further categorized by who can accomplish them:

State Officials

County Officials

City Officials

Governmental Organizations

Advocacy Organizations

Agricultural Producers

01

INTRODUCTION

- 01 Executive summary
- 02 Background

08

GOAL 1

Work to Make and Keep Agriculture Economically and Socially Viable in Utah County

Section One: Opportunities for Farmers and Ranchers

- 10 Promote greenbelt designation as a way for farmers to save on property taxes, by valuing their land based on agricultural production rather than market values
- 12 Support transitioning to specialty crops and niche products with high returns where feasible, and utilize value-added processing methods
- 14 Promote and implement practices that reduce operational costs and increase revenue
- 15 Help farmers develop marketing plans and processes to improve revenue and ensure that their products are sold
- 16 Explore a variety of food distribution systems to help local food thrive in Utah County
- 18 Promote agritourism
- 19 Develop succession planning, training, and education for farmers and ranchers

Section Two: Opportunities for State, County, and Local Governments

- 21 Increase financial assistance and access to agricultural lands for beginning and existing farmers and ranchers
- 23 Treat and promote agriculture as an important state industry cluster
- 24 Expand farmland by adapting systems and building water infrastructure that will bring quality water to prime farm soils

- 26 Promote urban agriculture and community gardening
- 27 Encourage the development of innovative agricultural processes and technology
- 28 Create local agricultural commissions that specifically promote farming in individual communities

Section Three: Opportunities for Education and Outreach

- 30 Strengthen relationships with Utah universities to research agricultural strategies, economics, and technologies; model agriculture futures; and promote agricultural education
- 31 Educate Utah children about agriculture
- 32 Educate landowners and residents about the value of agriculture and local food
- 33 Educate elected officials across the county about the importance of agriculture and their roles in promoting its future

34

GOAL 2

Encourage Development Patterns and Implement Measures That Support Agricultural Land and Water Resources

Section One: Proactive Preservation Measures

- 36 Use and fund conservation easements to protect farmland
- 38 Identify specific uses for agricultural lands and prioritize which lands should be preserved or undergo long-term conservation efforts
- 39 Establish Agriculture Protection Areas in Utah County to support farm operations at all scales
- 40 Develop transfer of development rights (TDR) programs
- 42 Encourage more efficient agricultural water systems and practices
- 43 Use alternative water transfer options to stop buy-and-dry practices

- 44 Control invasive species that are using large amounts of water

Section Two: Measures to Mitigate Development's Impact on Agriculture

- 46 Establish a minimum size of 40 acres for homes built in agricultural zones to discourage the conversion of farming operations into low-density residential lots
- 47 Encourage developers to cluster growth and promote denser development, leaving larger portions of farmland intact when farms are developed
- 48 Develop compact infrastructure to encourage development in areas where services already exist rather than in outlying areas
- 49 Encourage the development of vacant or underused parcels within existing urban areas
- 50 Update city plans and zoning practices to encourage agriculture, changing regulations to foster farming and better manage water
- 51 Accommodate more growth on less land
- 52 Ensure that urban growth occurs where appropriate and establish buffers between homes and agricultural lands
- 53 Establish a tax-base sharing program to encourage preservation of agricultural lands

55

FEDERAL CONCERNS

- 56 Work with congress and federal agencies to address regulatory concerns to increase the viability of farms and ranches

58

RESOURCES

**AGRICULTURE
THRIVES BEST WHEN
IT IS SUPPORTED
BY POLICYMAKERS
AS WELL AS IN THE
PRIVATE SECTOR**

EXECUTIVE SUMMARY

Agriculture is a significant part of Utah County's heritage. As Utah County continues to grow, it will be ever more difficult to provide sources of local food that are sufficient to feed even a fraction of Utah County's rapidly growing population. The population of Utah County is predicted to double by 2040. Certain fruits and vegetables can only be grown in areas where the microclimate is favorable—in Utah, many of these areas are in Utah County.

Utah County has the land, water, knowledge, and ability to produce local food. However, current trends present some challenges, including the loss of agricultural land and water to residential and commercial development. Food-producing land is currently being developed at a rate that will leave no irrigated land in the future to grow fruit and vegetables. Utah County needs to preserve resources so that agriculture can survive and even thrive. This will require strategic action.

This toolbox contains optional recommendations from the Utah County Agriculture Toolbox Steering Committee to the Utah County Commissioners, the Utah County Planning Commission, the county's cities, and county residents who hope to sustain and promote agricultural lands, water, and practices.

'TOOLS' ARE STRATEGIES THAT UTAH COUNTY CAN USE TO PROTECT AGRICULTURAL LANDS

Many of the strategies have been used with success in other parts of the country. They consist of a combination of incentives, market mechanisms, and support for directing development in Utah County in a way that preserves the unique character of the county.

Though the purpose of this toolbox is to help Utah County, many of the tools and strategies found herein can be adapted to benefit agriculture in other counties and cities across the state. In fact, a significant number of the strategies would be more effective if implemented across the state as part of a coordinated effort to protect and foster agriculture in Utah.

This toolbox is focused on promoting and finding support for the best strategies that will help agriculture thrive in Utah County in the coming decades. It will help Utah County create a plan to ensure

A DOLLAR SPENT ON A UTAH PRODUCT CREATES THE EFFECT OF ADDING \$4.00 TO \$6.00 TO OUR UTAH ECONOMY

This means when Utah consumers purchase locally produced or grown products it builds our Utah economy. In addition, when Utah consumers purchase locally produced products it enhances our Utah environment and reduces the carbon footprint of those products.

the long-term continuance of agriculture that respects Utahns' values, private property rights, and the desires of landowners. These optional tools vary widely and can be implemented by Utah County, the cities in the county, and even individual landowners to give additional options when deciding the future of their land.

Agriculture thrives best when it is supported by policymakers as well as the private sector. As such, this toolbox offers strategies for improving Utah County's agricultural future in the context of two main goals. Both goals are supported by strategies that can be implemented at different scales to help farmers, lawmakers, and other concerned residents make meaningful changes to benefit the future of agriculture in the county and state. **The two central goals of this toolbox are:**

- 1. Work to Make and Keep Agriculture Economically and Socially Viable**
- 2. Encourage Development Patterns and Implement Measures That Support Agricultural Land and Water**

A foundational part of the Utah County Agriculture Toolbox process was to form Steering and Stakeholder Committees to guide the creation of the toolbox. The committees worked tirelessly to review and develop strategies that would be most effective in Utah County.

This toolbox describes some agricultural preservation tools that may already be available. However, they may need to be implemented, revised, or enforced. It also describes new tools, which used in combination with existing tools, may preserve agriculture as a significant component of Utah County for future generations.

BACKGROUND

According to the Utah Automated Geographic Reference Center, Utah County has a total area of 2,144 square miles, or 1,372,160 acres of land. Much of the county, however, is not available for agricultural uses. A significant portion of the county is mountainous, forested, and publically owned. The valley lands at lower elevations are predominately privately owned, with Utah Lake occupying a large portion. The Utah Division of Water Resources reports that in Utah County farmers are growing 59,500 acres of alfalfa and hay, 8,600 acres of vegetables and corn, and 5,600 acres of fruits and berries. Compared to previous years, there are very few acres of farmland left in Utah County.

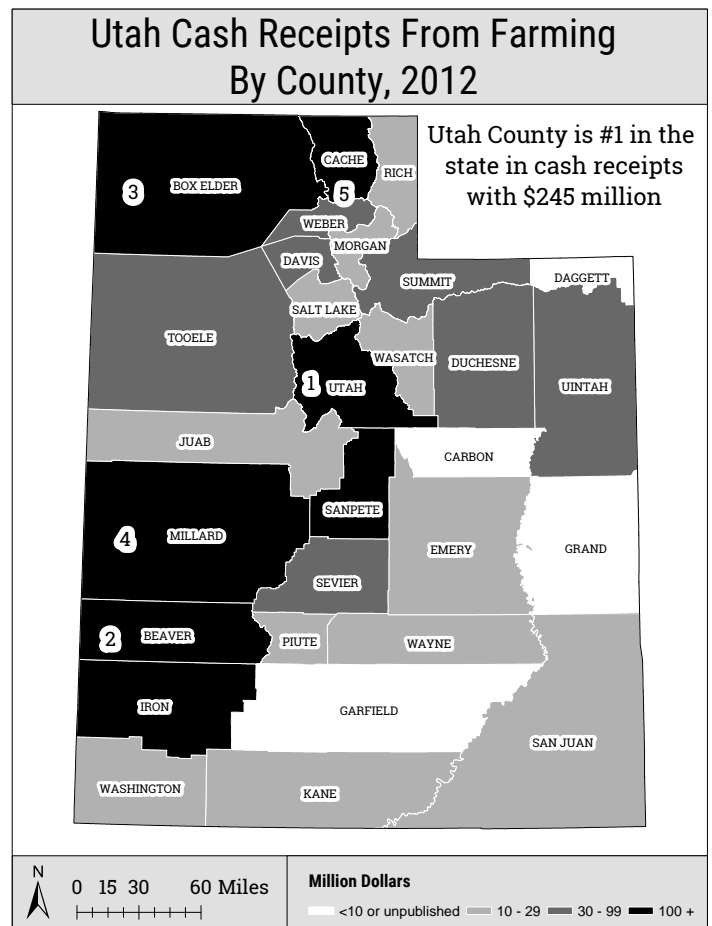
done by the University of New Hampshire on the cost of community services conclude that residential development contributes less in revenue than it requires in government expenditures. Agriculture, on the other hand, contributes more in revenue than it requires in expenditures. Farmland requires \$0.37 in public services for each dollar paid in taxes, while residential land requires \$1.11 in services for every dollar paid in taxes. Cities need to better understand the value of agricultural lands in relation to their low public services costs. Though agricultural lands are not considered major tax revenue generators, they are less expensive to maintain and provide other services that are often overlooked by economic analyses.

Agriculture contributes more in revenue than it requires in expenditures. Farmland requires \$0.37 in public services for each dollar paid in taxes, while residential land requires \$1.11 in services for every dollar paid in taxes.

As the population of Utah County grows, it will be increasingly difficult to provide locally grown foods for even a fraction of the county's residents. The July 2015 census estimates that Utah County has a population of 575,205 residents, who live in 25 municipalities and in the unincorporated areas of the county. Population estimates from the Governor's Office of Management and Budget predict that the 2050 population will be more than two times the current population, with a projected 1,216,695 people calling Utah County home. As more land on the edges of Salt Lake County continues to be developed, a significant amount of growth and development will shift southward into Utah County. Certain crops can only be grown in areas with specific microclimates commonly found in Utah County; however, much of this land is directly in the path of future growth.

Most other areas of the country will also convert farmland into urban areas, but Utah is unique in that most of our prime farmlands are directly adjacent to the path of development. Land projections estimate that 63,876 acres of farmland—half of the total remaining farmland in Utah County—will be developed by 2050. As a result, most of the high-quality, food-producing farmlands will be lost to urbanization. Once these lands are developed, there are no large amounts of peripheral farmlands for agriculture to move to.

As Utah County plans for population growth, it is important to remember two things: 1) Agriculture is better protected and housing is more affordable in communities where infrastructure such as water, sewer, roads, and schools are already available and 2) taxes paid on agricultural lands subsidize residential development. Studies



Source: Utah Agricultural Statistics and Department of Agriculture and Food 2014 Annual Report

UTAH COUNTY IS AN IDEAL MICROCLIMATE FOR FRUIT PRODUCTION

Agriculture has been an integral part of Utah County's heritage. The county is home to some of the most vibrant components of the state's agricultural economy; it is a major producer of popular specialty crops, including pears, cherries, apples, apricots, peaches, and more. Because Utah County has the specific microclimates necessary to grow many of these fruits, as well as several vegetables, it is an ideal location for diverse agricultural production. Due to its production of specialty crops, in 2012 the county was ranked first in the state for total cash receipts from farming and crop production.

#1 FOR TOTAL BERRY SALES

#2 FOR TOTAL FRUIT & TREE NUT SALES

INCREASE FROM
\$9 MILLION TO \$25.4 MILLION
BETWEEN 1997 AND 2012

#1 FOR ACRES OF ORCHARDS

DECREASE FROM
7440 ACRES TO 6015 ACRES
BETWEEN 1997 AND 2012

#1 FOR TART CHERRIES

INCREASE FROM
2249 ACRES TO 2699 ACRES
BETWEEN 2002 AND 2012

#1 FOR SWEET CHERRIES

DECREASE FROM
426 ACRES TO 291 ACRES
BETWEEN 2002 AND 2012

#1 FOR PEARS

DECREASE FROM
73 ACRES TO 48 ACRES
BETWEEN 2002 AND 2012

#1 FOR APPLES

DECREASE FROM
1201 ACRES TO 909 ACRES
BETWEEN 2002 AND 2012

#2 FOR PEACHES

DECREASE FROM
748 ACRES TO 530 ACRES
BETWEEN 2007 AND 2012

#1 FOR RASPBERRIES

INCREASE FROM
14 ACRES TO 44 ACRES
BETWEEN 1997 AND 2012

UTAH COUNTY VEGETABLE PRODUCTION

#3 FOR TOTAL VEGETABLE SALES

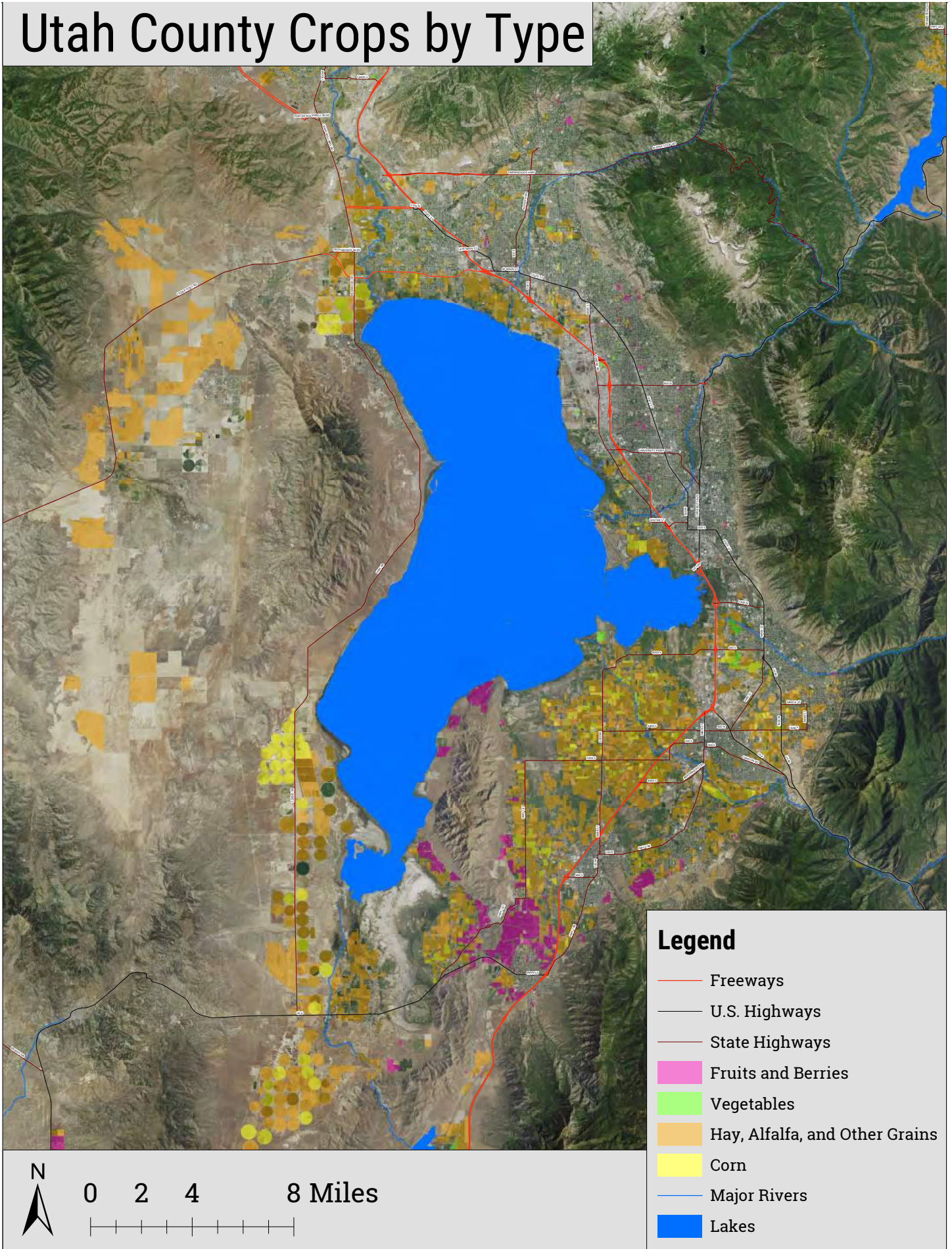
\$3.3 MILLION
IN 2012

#3 FOR ACRES OF VEGETABLES

INCREASE FROM
399 ACRES TO 723 ACRES
BETWEEN 1997 AND 2012

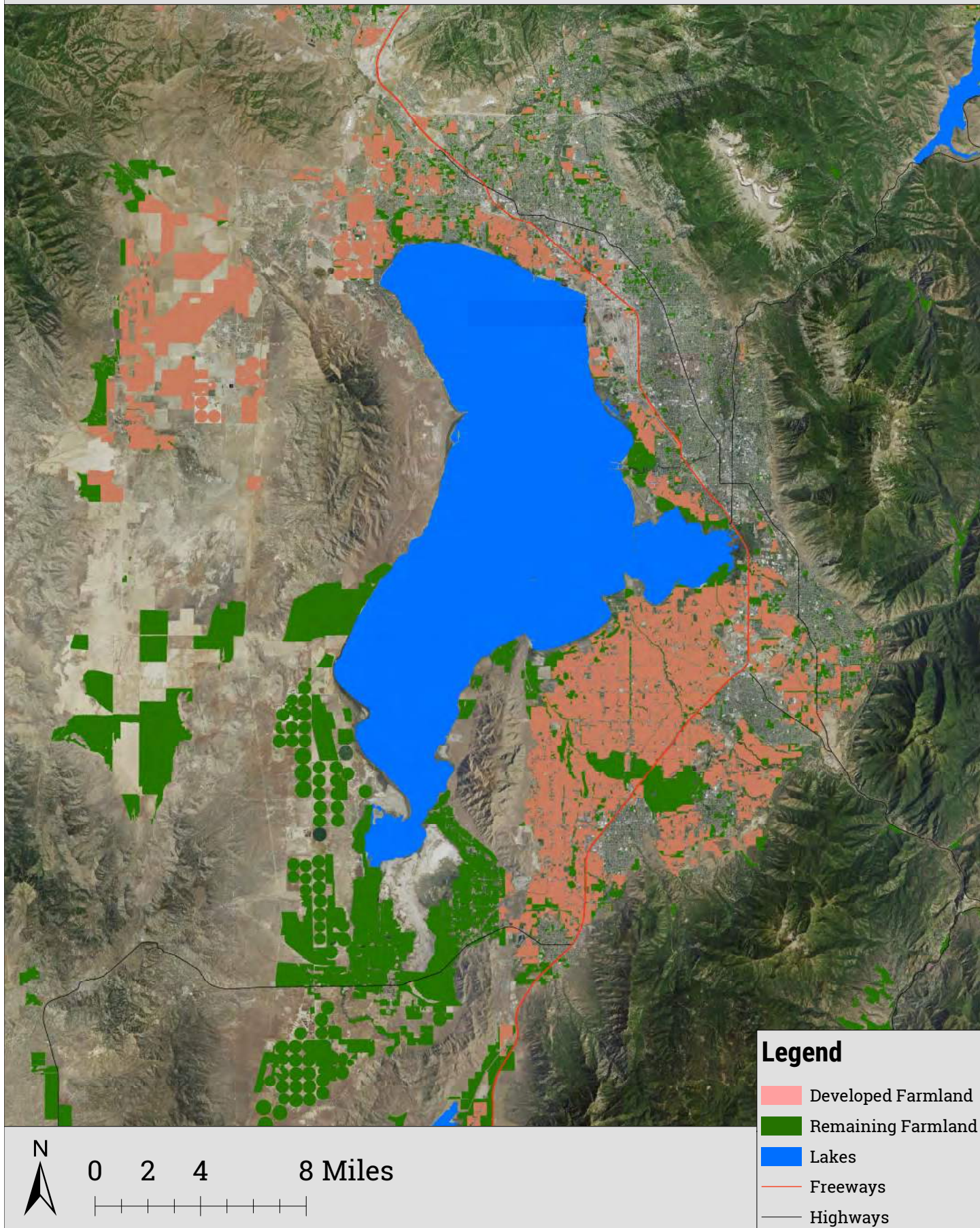
Shifting crops could improve farm revenues. Primary lands are where irrigated alfalfa (~26,000 acres) and corn (~3,000 acres) are grown. Secondary lands are where irrigated wheat, barley, oats, safflower, and sorghum (~7,000 acres) are grown. Both primary and secondary lands are suitable for vegetable production provided that soil and water conditions are met.

Utah County Crops by Type



Data from Utah Division of Water Resources

Farmland Developed in Utah County by 2050



Data from Utah Division of Water Resources and Your Utah, Your Future Land Development Projections

AGRICULTURE IS BECOMING MORE IMPORTANT TO UTAHNS

Through Envision Utah's Your Utah, Your Future community surveying and visioning process it became clear that Utahns are very concerned about the state's agricultural future. In 2007, almost one third of Utahns did not have a strong opinion about farming and ranching. By 2014, however, three quarters of Utahns agreed that farming and ranching are critical to Utah's future. Through the Your Utah, Your Future survey, 97% of the over 50,000 respondents chose one of two scenarios in which Utah substantially increases its production of agricultural products (see charts on page 7).

Utah County residents envision feeding their families with healthy, high-quality food grown in Utah. They see an abundance of locally grown products as part of a healthy lifestyle that will improve the quality of life for them and future generations. Utah County residents also envision being more self-reliant and less dependent on other states and countries to provide their food. They also want a future in which Utah's food industry provides jobs for residents.

Utah County has the resources, knowledge, and ability to produce a wide variety of local food, but current trends indicate Utah County will face significant challenges in growing and maintaining agriculture. One major hurdle is the loss of agricultural land and agricultural water as farms and ranches are converted into houses, businesses, and other commercial uses. Action must be taken now to protect and preserve farmland. If deliberate and thoughtful policies are adopted, agriculture in Utah County can continue, and even thrive, well into the future.

UTAH COUNTY AGRICULTURE TOOLBOX PROCESS

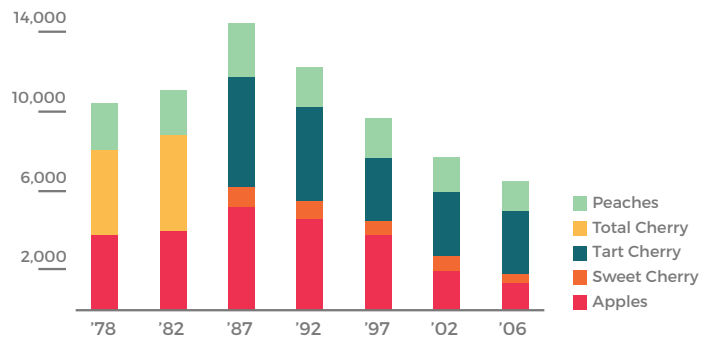
Summer 2015 – Envision Utah formed Steering and Stakeholder Committees to guide the toolbox creation process. Members of the committees began to review and integrate existing best practices, strategies, and plans.

Fall 2015 – A stakeholder meeting was held to kick off the project and encourage discussion among stakeholders. The group brainstorming activity at the end of the meeting resulted in the initial drafts of the toolbox's goals and strategies.

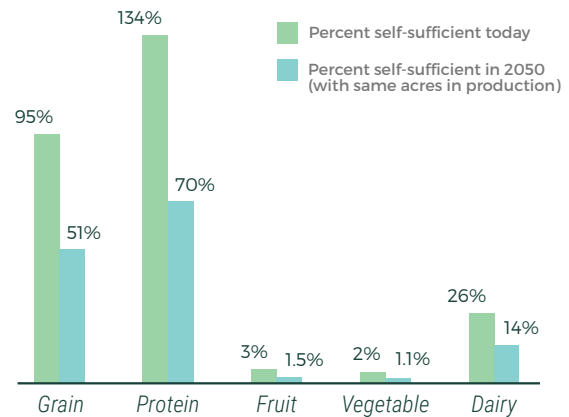
Winter 2016 – Envision Utah met with stakeholders individually to further define and develop the goals and strategies of the toolbox. A meeting was held with Utah State University to talk about agriculture's needs, agricultural education, and how agricultural research can benefit Utah County and the state overall.

Envision Utah convened the project Steering Committee to review the draft toolbox strategies. After some changes, the strategies were presented to the Stakeholder group, who discussed them and filled in other gaps in the toolbox. A group exercise at the end of the meeting revealed which goals and strategies the stakeholders

AGRICULTURAL PRODUCTION IN UTAH
(ACRES IN PRODUCTION)



AGRICULTURAL SELF-SUFFICIENCY



thought were a higher priority and which strategies were thought to be less supported or effective.

Spring 2016 – With the help of stakeholders and Utah agriculture experts, Envision Utah drafted the Utah County Agriculture Toolbox. Envision Utah staff worked to write detailed explanations of each strategy in the toolbox, seeking guidance by reaching out to stakeholders and by holding group meetings with experts on different topics.

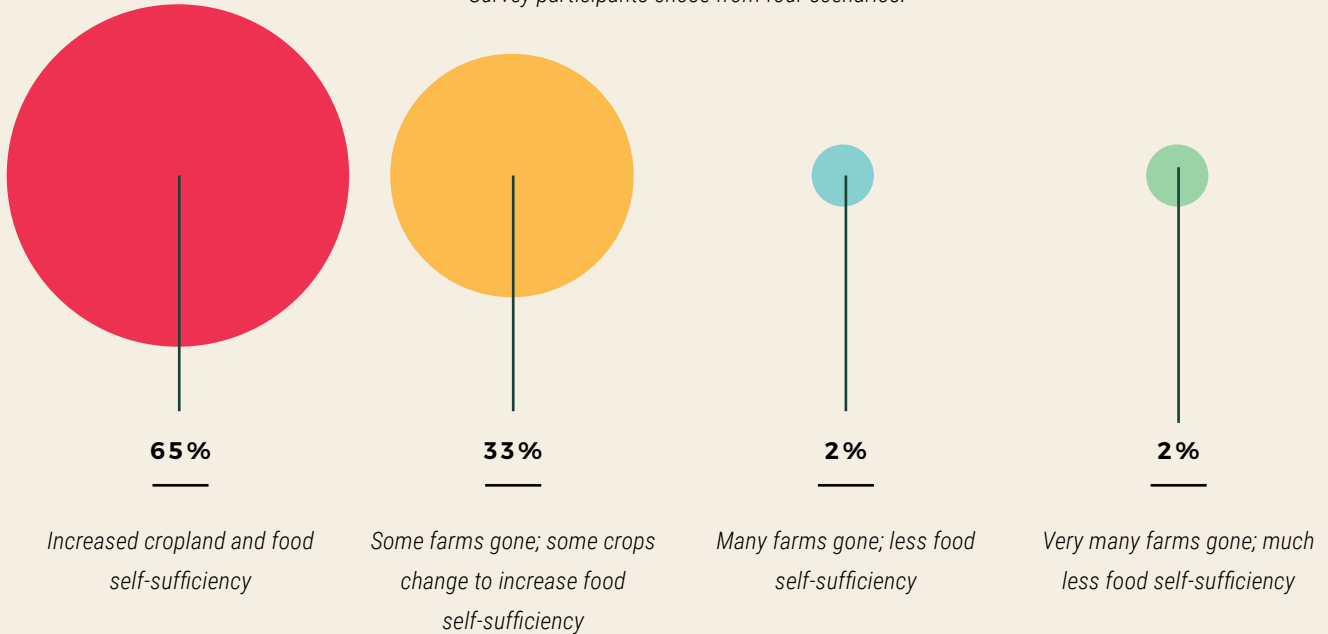
Summer 2016 – Envision Utah held additional Steering Committee and stakeholder meetings to review a near-final draft of the toolbox. These meetings helped identify and resolve any remaining gaps in information and confirmed the layout and content of the toolbox.

Summer / Fall 2016 – Envision Utah made final edits to the toolbox and finalized the layout, design, and content of the document.

Fall 2016 – The kickoff meeting for the Utah County Agriculture Toolbox was held, and the final draft of the toolbox was released and made available to lawmakers, organizations, communities, and individuals across the county and the state.

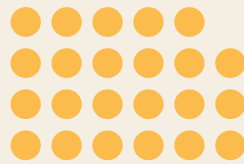
WHAT UTAHNS WANT FROM AGRICULTURE

Survey participants chose from four scenarios.



WHY AGRICULTURE MATTERS TO UTAHNS

Survey participants were asked to allocate 100 points across these outcomes based on which they considered most important.



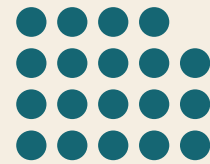
23%

Improving Utah's food self-sufficiency



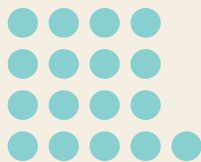
20%

Ensuring Utahns can eat locally grown food



19%

Maintaining the open space provided by farms and ranches



17%

Improving rural Utah's economy



12%

Maintaining Utah's agricultural heritage



8%

Allowing agricultural land and water to convert through market forces to higher-paying uses like houses and businesses



GOAL 1

Work to Make and Keep Agriculture Economically and Socially Viable

There are many ways to increase the viability of local agriculture in Utah County. Opportunities exist to increase agriculture through changes in production and distribution networks. Opportunities exist in the form of tax incentives and financial assistance for farmers and ranchers. Opportunities also exist through the expansion of new sources of income for farmers, like agritourism and value-added processing. Agriculture's viability can also be improved through more carefully considered succession planning and by increasing the visibility of agriculture to younger generations through education drives and exposure to urban agriculture.

Strategies for Goal One aim to establish agriculture as a more viable business. The goals are separated into three categories: Opportunities for Farmers and Ranchers; Opportunities for State, County, and Local Governments; and Opportunities for Education and Outreach.

SECTION ONE: Opportunities for Farmers and Ranchers

When provided with access to additional resources, farmers and ranchers can increase the viability of their operations in many ways. These agricultural producers can consider providing firsthand agricultural experience to community members in order to increase revenues through tourism. They can also begin to develop new products, using their produce to increase sale margins, or explore untapped markets in their communities. To protect the current and future viability of their lands, farmers and ranchers can also seek additional protections for their operations and plan who will take over their farms and ranches when they retire.

Promote Greenbelt Designation as a Way for Farmers to Save on Property Taxes, by Valuing Their Land Based on Agricultural Production Rather than Market Value

Who Can Implement This: *State, county, and city lawmakers; advocacy organizations; and agricultural producers*

The Utah Farmland Assessment Act allows Utah farmers and ranchers to have their agricultural property assessed and taxed based on its capability for productivity instead of real-estate market values.¹ The Utah State Tax Commission works with other committees and Utah State University to establish values for productivity that are applied statewide, setting terms of value per acre for different land classifications. Each qualifying parcel of property is classified upon application according to its existing features and the kind of agriculture being cultivated on it. This classification process gives the land a new value to be assessed and taxed on.

Greenbelt designation is meant to more accurately reflect the true value of agricultural land and operations and lower tax rates to dissuade landowners from selling agricultural land to residential developers. As a result, greenbelt designation could improve both the economic viability of farming operations and the preservation of existing farmlands in Utah County.

Greenbelt areas are also part of the county's heritage and can make communities more desirable and livable. These areas provide green, open spaces, which could improve air quality and reduce the urban heat island effect.

Greenbelt applications must be obtained from the Utah County Farmland Assessor. In order to currently qualify for greenbelt designation, a parcel of land must:

1. Be at least five contiguous acres,
2. Have been actively devoted to agricultural use for at least two years,
3. Be managed in a way that there is expectation of profit,
4. Meet average annual production requirements (at least 50% of the county average for production per acre).

Applications must be submitted by May 1st of the tax year. The resulting assessment is valid unless the landowner fills out another application withdrawing from the greenbelt designation.

State and local lawmakers should work with farm organizations to better understand what is expected of a landowner applying for greenbelt designation and to explore ways to streamline the application process.

IMPLEMENTATION

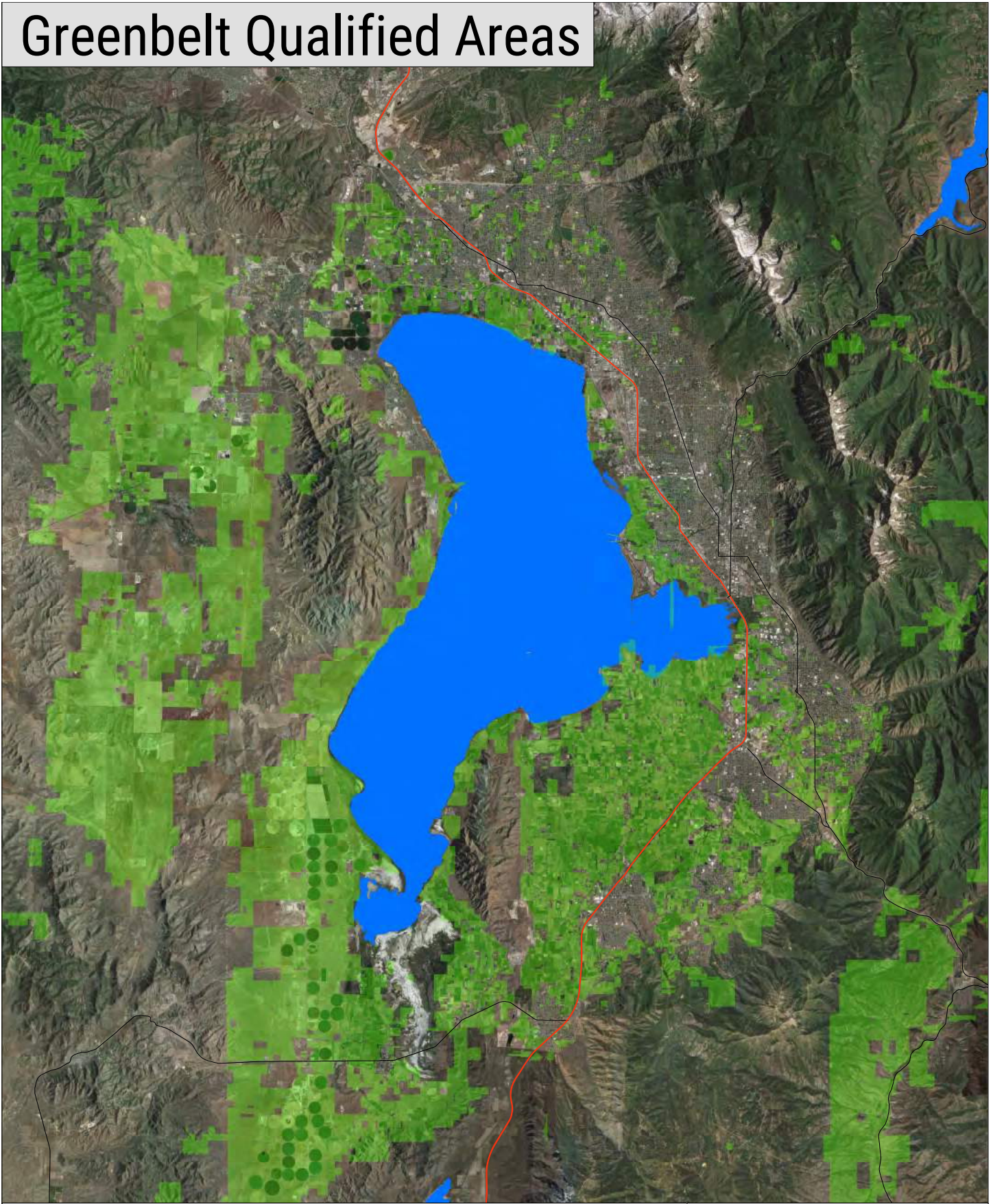
- **The Utah Department of Agriculture and Food should better inform farmers and ranchers on the benefits of greenbelt property value designation.** Though the greenbelt system has significant benefits, landowners must be aware of the program and must individually apply for greenbelt designation, meaning some may miss the opportunity if they do not know it exists.
- **It is recommended that state and county legislators seek to expand the Urban Farming Assessment Act.** This act should be expanded so that it specifically applies to Utah County, as it is to Salt Lake County. Expanding the act might also allow for more unconventional forms of agriculture, possibly including indoor agriculture.
- **Producers on smaller lots should utilize the Urban Farming Assessment Act where applicable.** The act allows active agriculturally producing parcels of land between 2–4.99 acres in size to be taxed similarly to greenbelt-qualified properties, lowering property taxes from market rate to more reasonable costs.

EXAMPLES

The Utah Farmland Assessment Act was created to specifically assist farmers and ranchers preserve their agricultural lands near expanding urban areas across the state. Individual county assessors are responsible for assessing land within their jurisdiction, and the Utah County Assessor's Office has a dedicated farmland assessor who oversees the countywide implementation of the Utah Farmland Assessment Act.

1. www.utahcounty.gov/Dept/Assess/Greenbelt.asp


Greenbelt Qualified Areas



0 2 4 8 Miles



Legend

 Parcels Qualified for Greenbelt Tax Exemptions

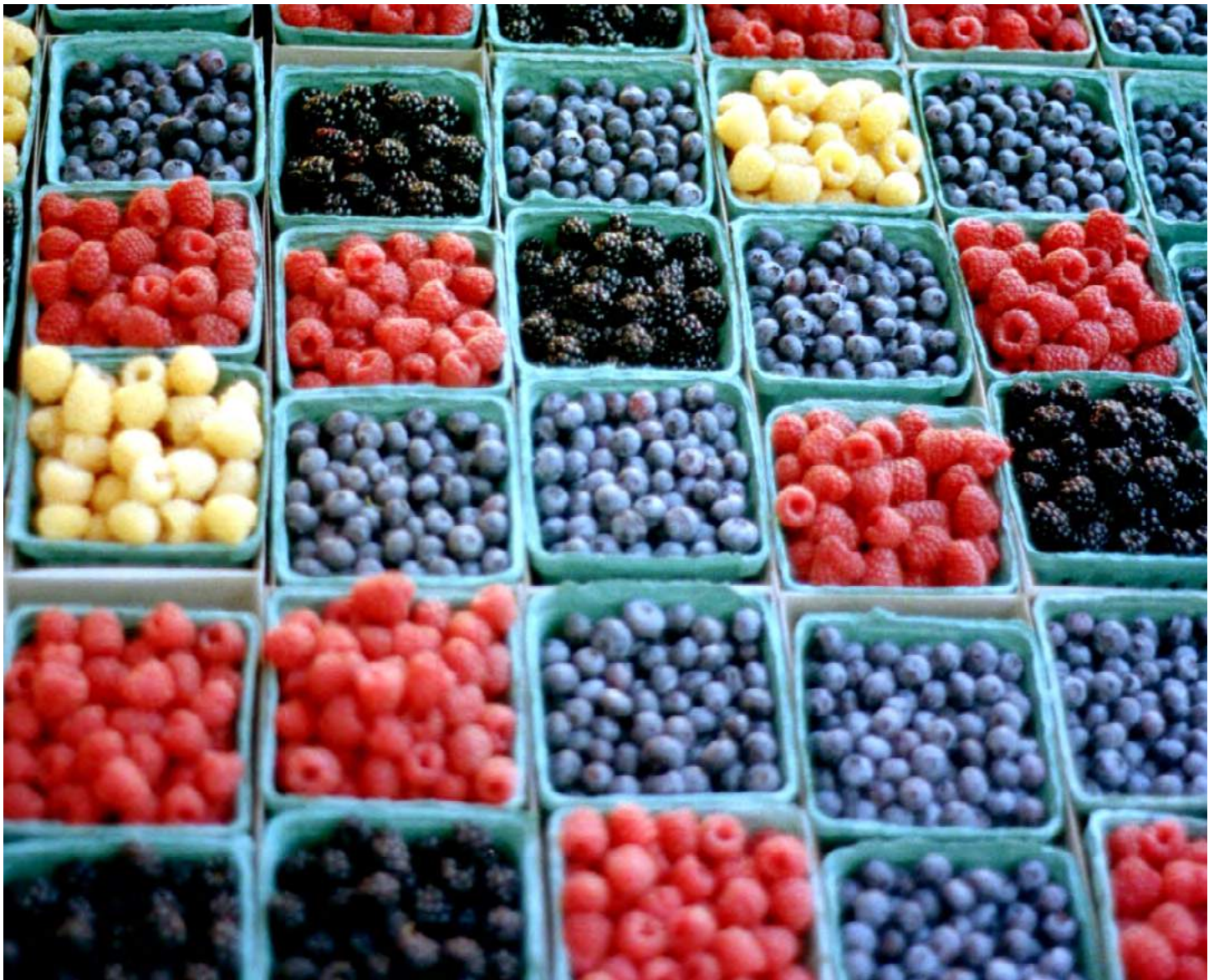
Data from Utah County Assessor's Office

Support Transitioning to Specialty Crops and Niche Products with High Returns where Feasible, and Utilize Value-Added Processing Methods

Who can implement this: *State and county lawmakers, and agricultural producers*

Utah County has an ideal microclimate for many specialty crops and niche products that are in high demand. Utah growers are already successfully producing and selling specialty crops such as tart and sweet cherries, pears, apples, raspberries, peaches, tree nuts, and vegetables. Shifting from common crops like hay and alfalfa to other specialty crops could potentially allow growers to sell their yields at much higher prices, improving farm revenues. High-value specialty crops that are both viable and relatively undergrown in Utah County include apricots, quinoa, lavender, pine nuts, and some herbs and vegetables.

Growers can also achieve higher revenues through value-added processing. Value-added processing refers to the on-site transformation of raw agricultural products into consumer-ready food products. Other potential ways of adding value to agricultural products involve utilizing each farmer's unique skillset and resources to implement strategies related to processing, packaging, or marketing. Even small farms can significantly increase their revenues through value-added processing by creating unique (and more valuable) combinations of products and by-products.²



2. www.und.edu/org/ndrural/case%20study%202011.summer's%20harvest.pdf

IMPLEMENTATION

A major aspect of this strategy is education-based, adding to and supplementing farmers' existing knowledge about which specialty crops grow well in Utah, which specialty products can be processed from their raw agricultural products, which products are in local market demand, and how to change farming practices if they began to grow specialty crops in place of more common crops

Specific programs can potentially be implemented in Utah County to promote specialty-crop production or to encourage farmers to explore value-added processing as a means to introduce unique products to the local economy while increasing their own revenues.

- **Utah State University should continue to work on outreach programs that explain how specialty crops and value-added processing can increase farmer's' agricultural revenues** and add value to the local economy. In addition, the university should provide education on incentives and funding available to help farmers capitalize on these opportunities.
- **It is recommended that the county work with state and national farm organizations to provide incentives and funding for farmers who are exploring the viability of specialty crops** or new ways to process products. Such organizations include the Utah Department of Agriculture and Food, United States Department of Agriculture, Utah Farm Bureau, etc.
- **Farmers and ranchers can look into potential market niches in their local economies** and evaluate whether specialty products and additional processes could be viable with their operations.
- If viable, individual farms should create strategies and secure funding to pursue specific forms of value-added agriculture, using careful planning to ensure maximum profits and minimum costs.
- **The Utah Department of Agriculture should work with state legislators and farmers to develop a state-run processing facility/commercial agriculture kitchen** to help farmers explore developing different kinds of agriculture products.

EXAMPLES

Rowley's Red Barn in Santaquin, Utah, is one of the most successful examples of specialty crop growing, value-added processing, and agritourism in Utah. The Rowley family met the demands of a lucrative niche market in the agricultural economy by producing specialty crops, primarily cherries and apples. The Rowleys furthered their unique role in the local economy by utilizing value-added processing to create specialty products ranging from dried cherries to fresh ice cream.³

The Utah Department of Agriculture and Food runs the Specialty Crop Block Grant Program. This program awards money to projects that work solely to enhance the competitiveness of U.S.-grown specialty crops, which benefits specialty crop growers across the state and nation. The Utah Department of Agriculture is particularly interested in increasing the overall viability of specialty crops in Utah and in understanding where in Utah the climate and growing conditions could be conducive for growing them. Funds are available to state agencies, organizations, and universities.⁴

The U.S. Department of Agriculture's Value Added Producer Grants program helps farmers adopt value-added activities related to processing and marketing by matching the funds of new and established farmers.⁵ These grants range in size up to \$250,000 and can serve as a crucial resource for smaller producers looking to expand their agricultural operations by filling a more unique, specialized need for products in their communities.

Utah State University's Food Quality and Entrepreneurship program, created by the school's food product entrepreneurial specialist, provides valuable resources to producers looking to create and market new products.⁶ Resources range from informational materials to workshops and classes that all aim to remove barriers to the food industry. The program assists farmers with every step of creating value-added products, allowing them to develop their products in an incubator kitchen, providing expertise about marketing, and making information about regulation and certification more accessible.⁷ Individual entrepreneurs can schedule the program's test kitchen at Community Action in Provo.⁸

3. www.rowleysredbarn.com/visiting-red-barn-farm-santaquin/history/
4. ag.utah.gov/home/news/597-specialty-crop-grant-applications-due-4-29-16.html
5. www.rd.usda.gov/programs-services/value-added-producer-grants

6. extension.usu.edu/foodbiz/
7. extension.usu.edu/foodbiz/hm/usu-incubator-kitchen
8. Call 801-373-8200 to schedule time in the Provo test kitchen.

Promote and Implement Practices that Reduce Operational Costs and Increase Revenue

Who can implement this: *Governmental organizations, advocacy organizations, and agricultural producers*

Farmers can increase revenues by exploring new technologies. New and different practices in the production, upkeep, and harvesting of crops could reduce the costs of operating a farm.⁹

Farmers and ranchers may also be able to increase revenue by exploring products for niche markets. Farmers could work with other farmers, both local and nationwide, to develop new processes and improve existing products in order to create new and more valuable products. Agricultural producers could also team up with other small-scale farmers and ranchers to increase their purchasing and marketing power.

IMPLEMENTATION

- **Utah State University should continue to look for ways to expand existing resources to help support farmers reduce operational costs and more efficiently produce and process agricultural exports.**
- **Farmers and ranchers should form partnerships** and work closely with other local and nationwide agricultural producers to combine buying and selling power **and explore ways to more efficiently market, ship, and otherwise process their products.** This combined power allows for local farmers and ranchers to explore new products, marketing methods, and other ways to improve revenues and the overall quality and reach of their operations.

EXAMPLES

The Rowleys of Rowley's Red Barn pioneered new ways of drying cherries by working with agricultural researchers at the University of California Davis and producers from Michigan and Oregon.¹⁰ Rowley's Red Barn is now working with Michigan's Cherry Central, combining their buying and selling powers to become leading cherry producers in the United States.

Nutri-Mulch, of the Moroni Feed Company, is a natural compost created with the used turkey bedding of five million turkeys.¹¹ This byproduct is processed to become a weed-free compost that releases nutrients slowly and improves plant-root structure, water-drainage, and air penetration.

Sheep ranchers Logan and Albert Wilde of Croydon, Utah, created fertilizer pellets from the waste produced by wool production. This innovation provided an extra source of revenue for the wool operation, improved the profitability of the ranch, and reduced the amount of wool that was thrown away.¹²

McMullin Orchards partnered with Utah County Extension to use specialty crop grants offered through the Utah Department of Agriculture and Food. The funds were spent to begin using cherry pits as part of soils and fertilizers allowing producers to make use of an underutilized by-product of cherry processing.¹³



9. www.uky.edu/Ag/CCD/introsheets/sustainableag.pdf
 10. www.rowleysredbarn.com/history-of-dried-cherries/
 11. nutrimulch.com/?page_id=26

12. fox13now.com/2016/05/03/utah-sheep-ranchers-invent-new-product-out-of-leftover-wool/
 13. ag.utah.gov/home/news/521-specialty-crop-block-grant-applications-now-available.html

Help Farmers Develop Marketing Plans and Processes to Improve Revenue and Ensure that Their Products Are Sold

Who can implement this: *Communities, universities, governmental organizations, advocacy organizations, and agricultural producers*

Marketing is a key aspect of agricultural production that is often overlooked. Marketing plans for farmers need to be substantial and holistic. Farmers and ranchers may benefit by expanding their knowledge of product marketing and not relying wholly on farmers markets or any one avenue for product sales. Using varied distribution channels may help farmers and ranchers better market their products and see increased revenue. To be successful, however, these marketing and selling methods require the support of other producers as well as the overall community.

IMPLEMENTATION

- 1. Universities and farm organizations should engage agricultural producers to support their marketing efforts.** Together, they should explore different avenues of delivering agricultural products to consumers, taking into consideration the unique conditions of different communities.
- 2. Utah County and its cities should partner with farms to improve the farms' product branding and marketing plans.** Such improvements could give the farms more exposure and help elevate the prestige of the city and county as a farming community. Governmental newsletter lists and communication networks could be used to inform residents about the farms and products.
- 3. Utah's Own** is an organization that provides farmers a unique avenue for advertising products and getting local crops on more store shelves. Utah's Own should continue reaching out to farmers and help raise public awareness about agricultural products that can be bought locally.

EXAMPLES

Rural Development of the USDA administers Rural Business Development Grants that can be used to help producers market products, package them in new ways, and develop new product lines.¹⁴

Utah State University Extension hosts seminars and classes that educate farmers, ranchers, and other business owners about issues crucial to owning a small business. These topics range from problem solving in entrepreneurship to developing marketing plans.¹⁵



¹⁴. www.rd.usda.gov/programs-services/rural-business-development-grants

¹⁵. extension.usu.edu/agribusiness/

Explore a Variety of Food Distribution Systems to Help Local Food Thrive in Utah County

Who can implement this: *State and county lawmakers, communities, governmental organizations, advocacy organizations, and agricultural producers*

A lack of efficient, accessible food distribution systems can be a barrier for farmers wanting to distribute their food products locally. More effective food distribution systems will improve the sale of farm products, better enabling farmers to connect to consumers. Many crops, such as vegetables, may produce a greater return than current crops, but without processing facilities in Utah or local distribution systems, farmers are unlikely to grow these crops. Local food systems provide the fresh, in-season products that Utah residents increasingly want and desire. Having strong local systems also improves the resiliency of Utah's food distribution, enabling Utah residents to buy more Utah products and rely less on importing food from places like California and Mexico.

Local food systems include the following options:

- Food hubs and co-ops
- Farmers markets
- On-site farm stands (or pick-your-own farms)
- Community supported agriculture (in which consumers buy a share of a local farm's projected harvest)
- Traditional grocery stores, schools, and restaurants

Food hubs are local nodes run by an organization that aims to connect communities and consumers to local food. They give agricultural producers a place to sell their products and strengthen the economic and social relationships of the producers and their surrounding communities. These hubs and co-operatives allow farmers and ranchers to capture profits that typically go to grocery stores in traditional food distribution systems, which increases local producers' revenues and often decreases the prices of fresh, local products. Food hubs help actively manage the aggregation and distribution of products and often provide farmers and ranchers with technical and marketing assistance to help them create and sell their goods.¹⁶

A farmers market is a public, recurring event where farmers or their representatives gather together to sell their food and products to consumers.¹⁷ Farmers markets facilitate personal connections that mutually benefit local farmers, shoppers, and communities. These markets, for instance, allow producers to sell unique products that cannot be found in grocery stores, and they help the community learn about healthy eating and where local products are grown. As a community experience, farmers markets are places where people can meet their neighbors, friends, and farmers in an environment that is friendly, educational, and enriching.

Farm stands are permanent or temporary structures, usually operated at specific times of the year, where farmers display and sell agricultural goods.¹⁸ Successful farm stands are commonly located in places in areas of frequent vehicle traffic where potential customers can easily see farm products and purchase them. These venues offer the community increased access to local foods and allow farmers a flexible option for selling their products. Pick-your-own farms allow consumers to go into farmers' fields and harvest crops themselves.¹⁹ These farms are marketing channels for those consumers who like to select and purchase fresher, higher-quality, vine-ripened produce at lower prices. Farmers likewise benefit from reduced needs for harvesting and labor, lower equipment costs, and opportunities for larger transactions per customer. Good crop types for this type of operation include berries, tree fruit, pumpkins, and Christmas trees.²⁰

In community supported agriculture, growers and consumers support one another and share the risks and benefits of food production.²¹ Typically, members or "shareholders" of the farm or garden pledge in advance to cover the anticipated costs of the farm operation and farmer's salary. In return, they receive shares of the farm's harvest throughout the growing season and gain the satisfaction that comes with connecting to the land and participating directly in food production.

Continuing to utilize marketing strategies through Utah's Own is important in helping Utahns obtain the products they want.²² Utah's Own provides information about where people can purchase locally grown products, which helps support and strengthen the county's agricultural industry. Promoting the sale of local products also positively affects Utah's economy, as money spent in Utah stays in the local economy, benefiting our small businesses.

Though new food-distribution systems can significantly increase the accessibility of farm-grown produce in Utah County, improving older systems can be an equally effective and viable strategy for some communities. Existing traditional food distribution systems should be modified and improved to better accommodate local farmers and ranchers. By sourcing their food from local farmers and ranchers, grocers, restaurants, and schools can offer healthier and fresher produce and meals while passively educating their communities about local foods. Restaurants and neighborhood grocers should advertise when they use or sell local agricultural products to draw additional customers while simultaneously supporting local producers.

¹⁶. ngfn.org/resources/ngfn-database/knowledge/FoodHubResourceGuide.pdf

¹⁷. farmersmarketcoalition.org/education/qanda/

¹⁸. www.co.pierce.wa.us/DocumentCenter/View/26458

¹⁹. www.uky.edu/Ag/CCD/marketing/pyo.pdf

²⁰. extension.tennessee.edu/publications/Documents/PB1802.pdf

²¹. www.nal.usda.gov/afsic/community-supported-agriculture

²². yourutahyourfuture.org/topics/agriculture/item/27-background-agriculture-in-utah

²³. www.foodcoopinitiative.coop/sites/default/files/How%20to%20Start%20a%20Food%20Co-op.pdf

IMPLEMENTATION

Food Hubs and Co-ops

- **Utah County needs to facilitate the creation of one or more co-ops or food hubs in the county.** Depending on the support from the community, the county should provide resources and assistance to advance the process. The Cooperative Grocers' Information Network has an informative guide about how to start a food hub.²³ The guide contains useful checklists of tasks for each step in creating a food hub.

Farmers Markets

- **Community leaders should improve the marketing of their farmers markets** to increase awareness, interest, and demand at these events. Doing so will increase exposure and sales for farmers.
- **Utah County should work with its cities to better understand the needs of farmers market throughout the county** and work with communities to create new farmers markets if needed. The University of California's Small Farm Program has a detailed step-by-step guide to starting a new farmers market in a community.²⁴

On-Site Farm Stands and Pick-Your-Own Farms

- **Farmers whose crops and operations are compatible with a pick-your-own strategy should research if such an approach would be beneficial to them.** The University of Tennessee's Institute of Agriculture has a good guide to help farmers who are thinking of establishing a pick-your-own operation.²⁵ This guide lists common pick-your-own crops and outlines strategies to identify good business practices and potential risks.

Community Supported Agriculture

- **Farmers should investigate if community-supported agricultural production is a viable and beneficial option for them.** The North Carolina Cooperative Extension has a resource guide with tips for farmers interested in starting a community-supported agriculture (CSA) program.²⁶

Traditional Food Distribution Systems

- **Whenever possible, grocery stores, schools, restaurants, and other existing food-distribution networks should work with local producers (abiding by all necessary regulations) to use and sell local food.** Private organizations should partner with many local producers to establish systems that better link businesses and schools to existing sources of local food.

EXAMPLES

The Provo Farmers Market is a particularly successful local farmers market in Utah County. The market is held weekly in Provo's Pioneer Park and features activities, local food, artists, and other vendors. The market provides local residents an opportunity to easily access local food while also serving as a lively community hub during the warmer months. Though the market is immensely popular, it only runs from June to October, so outside that timeframe, local food must be distributed through other avenues.²⁷

Utah also has a community supported agriculture (CSA) program dedicated to connecting farms across the state to their local communities. Community members can purchase a share of a local farmer's produce, often at below market price.²⁸ CSA Utah already partners with many growers in Utah County, though there is always room for expansion. The organization's website lists places where people can purchase shares from local farmers and growers.²⁹

Utah has only two co-ops, both located in the Salt Lake Valley. The Community Co-Op is located in Salt Lake City and features a direct-to-door delivery service, allowing community members to receive fresh, local produce without having to leave their houses. The Community Co-Op prides itself on averaging prices that are 20% to 50% lower than what is found in most grocery stores.³⁰ The Utah Co-Op is located in Murray and also sells local produce at lower prices than major grocery stores. Though most co-ops require a membership, membership in the Utah Co-Op is free for Utah residents.³¹

Utah's Own program was established to create a consumer culture that allows customers to choose Utah products at retail stores, restaurants, and everywhere else consumers shop. When Utah consumers purchase locally produced or grown products, our economy grows; \$1.00 spent on a Utah product results in \$4.00– \$6.00 being added to the economy. In addition, purchasing local products enhances the environment by reducing the carbon footprint of those products.³²

Utah's Own has a comprehensive website where consumers can search for local farms and ranches and find information about specific farms and where to purchase local goods. Farmers can join Utah's Own at no cost. "Members enjoy the benefits of business-to-business networking and resourceful training via statewide chapters. Chapter leaders, selected from current membership, serve across the state and offer a valuable resource to current and potential business owners. . . . In addition, all members are encouraged to use the trademarked Utah's Own brand in their local marketing efforts, as well as participate in the Utah's Own events offered throughout the year."³³

24. sfp.ucdavis.edu/files/144703.pdf

25. extension.tennessee.edu/publications/Documents/PB1802.pdf

26. growing-small-farms.ces.ncsu.edu/growing-small-farms-csaguide/

27. www.provofarmersmarket.com/

28. csautah.org/whats-a-csa

29. www.csautah.org/find-a-csa

30. thecommunitycoop.com/

31. www.utahcoop.org/

32. www.utahsown.org/Why-Should-I-Buy-Utah-s-Own-Products

33. www.utahsown.org/signup

Promote Agritourism

Who can implement this: *State and county lawmakers, advocacy organizations, and agricultural producers*

Agritourism is any activity that allows the public to view or experience agriculture for recreational, entertainment, or educational purposes. Agritourism includes, but is not limited to, agricultural activities for families, ranching activities, and historic, cultural, or natural attractions. Agritourism benefits farm owners by exposing their farms to the community and by providing a source of additional income (which can increase the economic viability of small farms). As they participate in unique, hands-on farming experiences, agritourists may learn to see food differently and develop a desire to protect local farms. Though agritourism may not be viable for all farming operations, it has been valuable and successful for several farms in Utah County.

IMPLEMENTATION

- **It is recommended that Utah County's agricultural producers encourage state and county lawmakers to create county-specific codes and policies that promote and incentivize agritourism.** These codes would establish the guidelines and parameters of agritourism and make it a better-known and viable source of income for farmers and ranchers.
- **Governmental and non-profit farming organizations should ensure that farmers and ranchers have knowledge about the benefits of agritourism and how to establish an agritourism program on their property.** These organizations should streamline the process of establishing and conducting agritourism and make agritourism law more understandable and accessible. Though putting up a liability notice for visitors is the only step farmers are strictly required to take before beginning an agritourism business, they should consider several other matters in order to maximize the possibility that their ventures will succeed:
 - Farmers and ranchers must determine what activities they want to have available on the farm, what they want to sell, and the staffing needs for these services and products. They can look at other successful agritourism farms in their region to determine what has been successful in the past and what niche market they can accommodate.
 - Agricultural producers must create a business plan based on the material and staffing needs of the agritourism operation. Pricing for both admission and products must also be determined. Local community colleges or business centers often assist entrepreneurs looking to create business plans
 - Agritourism businesses must ensure that they comply with local regulations and the health department and provide needs like parking and ADA accessibility. These businesses must also ensure they are covered by liability insurance.
 - Farmers and ranchers must establish and implement a marketing plan to attract agritourists. These marketing plans can range in complexity and are crucial to the success of an agritourism business.³⁴

EXAMPLES

Rowley's Red Barn is one of the state's most successful agritourism operations. The farm has a thriving school-tour system and hosts events for visitors year-round. The farm operates its own store and ice cream parlor that serves ice cream, cider slushes, shakes, and a variety of fountain sodas. Most small-scale producers may not be able to create such a large agritourism business, but Rowley's Red Barn is a prime example of how to identify a specific agritourism niche and expand offerings and services to meet the demands of that niche.



The Petersen Family Farm in South Jordan holds a food truck event every Friday night from April through October.³⁵ This event brings in a variety of food trucks and helps to expose people to farm products in a unique and enjoyable setting.

Weber County has a specific code that governs agritourism uses and clearly explains how farmers and ranchers can utilize agritourism on their farms.³⁶ The code explicitly outlines agritourism activities and makes their limitations and benefits understandable.

The University of California Davis has a Small Farm Program that focuses on agritourism. Through resources such as classes and projects, the program brings together community members, students, and local farms, to explore different forms of agritourism and analyze how the relatively new field is changing as more people begin participating in it.³⁷

³⁴. www.agmrc.org/media/cms/suggestions_start_an_agritourism_ve_5754f41017aee.pdf

³⁵. petersenfarm.com/fun/food-truck-fridays/

³⁶. www.co.weber.ut.us/mediawiki/images/2/28/Weber_County_Agritourism_Code_Adopted_Final_Definitions_to_Back_Easy_Format.pdf

³⁷. sfp.ucdavis.edu/agritourism/

Develop Succession Planning, Training, and Education for Farmers and Ranchers

Who can implement this: *County officials, governmental organizations, and advocacy organizations*

According to the U.S. Labor Department, the average age of a farmer or rancher is 58 years old, an average that is gradually increasing.^{38,39} The average age of U.S. farm operators increased from 55.3 in 2002 to 58.3 in 2012 according to the Census of Agriculture.⁴⁰ In addition, the University of Vermont's FarmLASTS Project estimates that 70% of the nation's private farmland will change ownership within the next 20 years.⁴¹ The future of farming is in question because fewer individuals are choosing farming as an occupation than before and an increasing number of young adults are pursuing careers other than farming and ranching. Proper succession planning helps ensure that people are available and ready to take over a farm's business when its owners retire.

Succession planning is the process of formally transitioning management and ownership of an agricultural business from one generation to the next. Since individuals' relationships and situations vary, there is no single plan that can be used by every family or business. Some examples of plans involve an outright sale of the family farm to the younger generation (or to a third party), rely primarily on passing down lands to other generations, or involve forming businesses to help make a transition possible in the future or dividing a large operation into smaller, discrete parts to support different families.

Succession planning permits a farming family to transfer management and ownership of their business in the way they want. It also encourages the family to address legal, tax, and family issues in advance (when they are best prepared), rather than being forced to deal with them quickly after the death of the farmer or rancher.⁴²

Preparing farm operations for those who will take over ensures that the next generation will be able to continue Utah's farming legacy. Many small family farms don't have clear plans in place to guide a future transition in ownership. Not establishing clear succession plans or identifying potential candidates to take over farm operations can result in farms having no heirs, farmers being unable to retire, and agricultural land being sold for other uses.

IMPLEMENTATION

Utah County, the Utah Department of Agriculture and Food, and private organizations should offer training and outreach to educate farmers on the details and challenges of transitioning management and ownership of farmland to different generations.

A list of important steps for succession planning might include:⁴³

1. Defining goals and objectives: Do farmers want to pass along the entire business and its assets, or do they want to lease the land?
2. Identifying potential successors and creating a timeline for succession
3. Scheduling meetings with advisors (an attorney, accountant, financial advisor, exit planner, etc.) to discuss how to implement succession and to finish estate planning
4. Creating plans for the business and for retirement
5. Forming appropriate business entities and creating legal agreements such as an operating agreement and a buy-sell agreement
6. Establishing a plan for training successors and transitioning ownership
7. Communicating throughout the planning process and making revisions and adjustments as needed

EXAMPLES

The New Jersey Department of Agriculture consolidates many farm-transfer and succession-planning resources for its retiring farmers.⁴⁴

Pennsylvania has a Preserved Farms Resource Center dedicated to succession planning. The center helps retiring farmers connect with younger generations of farmers and helps new farmers establish themselves within the farming community.⁴⁵

Iowa's Ag Link Program connects beginning farmers who need agricultural lands to retiring farmers who do not have heirs or successors. This program is a powerful resource for retiring farmers and allows communities to more easily maintain agricultural lands across generations.⁴⁶

Utah State University as well as private organizations like the Farm Bureau Financial Services assist farmers in transitioning management and ownership of agricultural businesses from one generation to the next.⁴⁷

38. www.agcensus.usda.gov/Publications/2012/Online_Resources/Highlights/Farm_Demographics/#average_age
39. www.fcccouncil.com/files/Different%20Ways%20to%20Look%20at%20the%20Aging%20of%20U%20S%20Farmers.pdf
40. www.agcensus.usda.gov/Publications/2012/Online_Resources/Highlights/Farm_Demographics/#average_age
41. www.uvm.edu/farmlasts/
42. www.fosterswift.com/publications-Succession-Planning-Family-Farm.html
43. www.hallock-law.com/tag/farm-and-ranch-planning/page/3/
44. www.nj.gov/agriculture/sadc/farmlink/resources/farmtransition.html
45. www.agriculture.pa.gov/Encourage/farmland/Pages/Preserved-Farms-Resource-Center.aspx#.VvmzLelrKUK
46. www.extension.iastate.edu/bfc/farm
47. www.fbfs.com/

SECTION TWO: Opportunities For State, County, and Local Governments

State, county, and city governments can significantly improve the economic viability of agriculture in Utah County. State officials, for example, can expand the resources available to beginning and existing farmers and incentivize new technologies that make farming and ranching more viable at different scales. County and other local governments can promote infrastructure projects and urban agriculture as a way to increase agriculture's presence in both rural and urban communities.

Increase Financial Assistance and Access to Agricultural Lands for Beginning and Existing Farmers and Ranchers

Who can implement this: *Federal, state, and county lawmakers; governmental organizations; advocacy organizations; and agricultural producers*

Many individuals face significant barriers when trying to start a career in farming and ranching, such as limited access to lands and markets, inflation of land prices, high costs, and a lack of support networks. The impact of these barriers can be seen on a national scale: from 2002 to 2012, the number of farm operators who were 75 years old and older grew by 20 percent, while the number of operators under 25 decreased 30 percent.⁴⁸

Beginning farmers often struggle to afford the initial cost of buying land. One of the most significant barriers to entry, land prices are rising in much of Utah County. As a result, alternative land-acquisition and land-leasing programs are emerging as a crucial resource for farmers who are unable begin farming or ranching through traditional avenues.

New farmers and ranchers often have difficulty receiving financial aid, especially if they do not have the assets needed to invest in a farm or an established and extensive track record in the industry. Farmers who want to farm using less traditional methods or utilize new farming technologies can find it even more challenging to secure loans and funding.⁴⁹

Existing farmers also need resources to help support their businesses. Financial resources need to be expanded to assist farmers who are established assets in local agriculture. More resources are needed to meet the financial realities of farming in Utah and to properly incentivize farming.

Many small-scale farmers find it difficult to make agricultural production a profitable business. Farming has traditionally been a risky enterprise because of inconsistent income and the constant risks of crop loss, price collapses, significant weather events, and external price fluctuations. Financial assistance helps farmers overcome these obstacles and continue farming.

IMPLEMENTATION

- **Utah County lawmakers, governmental organizations, and farming organizations should organize a summit to connect young farmers to older farmers.** The summit would provide younger farmers with mentors and encourage older farmers to pass on knowledge about local farming to the next generation. This summit could also pair farmers with organizations that administer financial-assistance programs.
- **Nonprofit and governmental organizations should examine available strategies and determine which resources fit well together, where gaps exist, and where additional outreach and education is needed to help connect farmers and ranchers to financial resources.**
- **It is recommended that farm organizations like the Utah Department of Agriculture and Food, the U.S. Department of Agriculture, and the Utah Farm Bureau coordinate together to streamline state and federal financial programs.** Existing programs for farmers and ranchers should not require complicated applications or extended processes. Financial programs, grants, and loans often target practicing farmers, who often do not have the time for lengthy application processes. These organizations should make changes to ensure that existing programs are easily accessible to most farmers.
- **It is recommended that state and county lawmakers establish additional land-acquisition and land-leasing programs** to increase beginning farmers' opportunities to access lands.
- **Major private and public landowners in Utah County should consider leasing vacant land to beginning farmers to increase the county's agricultural output and provide beginning farmers with valuable experience with small-scale agricultural production.**
- Financial assistance for Utah farmers is primarily available at the federal level. **The state and county should establish new financial programs to encourage farming in Utah County** and to remove some of the challenges facing farmers in the region. As opposed to nationwide resources, local programs can be more tailored and targeted to the needs of farmers in Utah County. Utah County commissioners and the Utah State Legislature should consider expanding assistance programs for farmers in Utah Valley as well as the rest of the state.
- **It is recommended that lawmakers and farm organizations work to create additional programs to fulfill identified needs** and find ways to help existing farmers be more financially secure and profitable.

48. sustainableagriculture.net/wp-content/uploads/2008/08/2012_3_21NSACFarmBillPlatform.pdf
49. sustainableagriculture.net/wp-content/uploads/2008/08/2012_3_21NSACFarmBillPlatform.pdf

EXAMPLES

New Mexico has hosted several farming and ranching summits that have successfully connected new agricultural producers with older farmers and spread knowledge of new and more efficient farming practices.⁵⁰ The New Mexico Organic Farming Conference, for example, is a yearly farming summit that focuses on sharing experience and expertise through workshops and sessions.⁵¹

Utah State University Extension has hosted farm and ranching workshops, though they have not been held consistently and future summits would ideally be larger and involve more ranchers and farmers.⁵²

In 2015, Salt Lake County launched Farmlink, a program focused on connecting interested urban farmers with vacant lands that could be used for food production. These lands are either privately owned or publically owned by entities such as Salt Lake County or a municipality. The program was incentivized through property tax reductions for landowners who were willing to lease their land for urban commercial farming.⁵³



50. holisticmanagement.org/blog/new-mexico-ranching-summit-a-success/

51. www.farmtotablenm.org/programs/new-mexico-organic-farming-conference/

52. extension.usu.edu/htm/news-multimedia/articleID=23838

53. slco.org/urbanfarming/

Treat and Promote Agriculture as an Important State Industry Cluster

Who can implement this: *State lawmakers, universities, governmental organizations, and advocacy organizations*

Establishing agriculture as an industry cluster in Utah would emphasize its importance to the state's economy and better connect farmers to resources and other support. As a result, the agriculture industry will become more sustainable and economically feasible.

The purpose of industry clusters is described by the Utah Governor's Office of Economic Development as follows: "With the Utah Strategic Industry Clusters, Utah works to create sustainable advantages around emerging (and mature) sectors by combining and aligning a wide variety of business interests, including: industry experts, research universities, capital, fresh technology, and environmental concerns."⁵⁴ Agriculture is an important industry in Utah, and the economic impacts of agriculture are dramatic. According to a 2011 Utah State University study, the agricultural processing and production sectors together account for \$17.5 billion in total economic output after adjusting for multiplier effects. The two agriculture sectors account for about 78,000 jobs and 14.1 percent of total state output.⁵⁵ Having a cluster would show the state's economic and legislative leaders that the state considers agriculture to be a viable, lucrative, and important business sector in Utah.

IMPLEMENTATION

Agricultural experts from universities, state agricultural organizations, the farming industry, and advocacy organizations need to educate elected officials and governments on the importance of agriculture to the state's economy because clusters are established based on what these decision makers see as core strengths of the state's economy.

It is recommended that existing state-level organizations like the Utah Natural Resources Conservation Service and Farm Service Agency offices, the Utah Department of Agriculture and Food, and the Governor's Office of Economic Development promote agriculture as a state industry cluster. State universities should also teach Utahns about the importance of agriculture to the state's economy.

Utah Department of Agriculture and Food, the Governor's Office of Economic Development, and other economic and development organizations should use the following six-step procedure, or a suitable equivalent, to create and implement industry clusters:⁵⁶

- Investigate: Analyze local and national trends, perform outreach to verify data, and select clusters that have the most potential for growth.
- Inventory: Define the cluster specifically and inventory organizations and institutions important to the cluster, key leaders in the industry, and policies and practices that affect the cluster.

- Convene: Review and confirm the cluster's focus and scope; identify the needs, opportunities, and obstacles the cluster faces; and identify areas of strong mutual interest among stakeholders.
- Diagnose: Synthesize findings into a market analysis, select strategic interventions, and develop an action plan with stakeholders.
- Act: Establish clear expectations for cluster partners, allow leadership to emerge, and implement the identified interventions.
- Evaluate: Analyze how well the interventions achieved their goals, including how well the interventions created job growth in the cluster, and explore possibilities for additional interventions and strategies.

EXAMPLES

One of Oregon's core business clusters is agriculture. Oregon estimates agriculture provides 1 of every 8 jobs in the state and makes up 15% of the state's economy. The establishment of agriculture as an industry cluster has allowed Oregon to research agriculture's economic weaknesses and strengths and create initiatives to protect and encourage the state's agricultural businesses in the future.⁵⁷

54. <http://business.utah.gov/industries/>

55. <http://ag.utah.gov/documents/EconomicContributionOfAgriculture2011.pdf>

56. <http://www.pdxeconomicdevelopment.com/industries.html>

57. <http://www.oregonbusinessplan.org/industry-clusters/about-oregons-industry-clusters/agriculture/>

Expand Farmland by Adapting Systems and Building Water Infrastructure That Will Bring Quality Water to Prime Farm Soils

Who can implement this: *State, county, and city lawmakers; water conservancy districts; and infrastructure-funding boards*

Expanding and building water infrastructure will bring more high-quality water to farms and ranches and help Utah provide food to its growing population. Some areas in Utah County do not have enough irrigation water to make farming viable, and in some areas the water quality is not good enough to sustain orchards or other high-value crops. For example, Cedar Valley contains many viable agricultural lands that are not farmable because there is no available water in the valley. The cost of building and expanding water infrastructure projects can be prohibitive, but if the projects are carefully planned and executed they can provide new farming opportunities in areas that currently have limited water availability and increase the amount of high-functioning agricultural lands available in the county and state.

Water use in the future must be balanced between agricultural and residential use.⁵⁸ Future water infrastructure projects should coordinate with planned residential growth in order to cut back on construction costs and to use the water as efficiently as possible. One stakeholder mentioned that “agriculture can’t pay for every water infrastructure project; people need to realize that these projects will benefit the entire region in the future.”

As communities convert agricultural lands into urban lands, the water infrastructure that existed to primarily service farms needs to be adapted to provide water not only to the remaining farms, but also to the new homes and businesses. Careful planning is important to appropriately balance water use and to meet all of the water needs from users in a community.

Utah’s Water Quality Revolving Fund is an important resource for funding key water-conservation and increased-efficiency strategies. This fund helps finance state projects including pipeline construction, ditch lining, and other projects. As legislative focus has shifted to other areas, money for this revolving fund has been lacking in recent years.

Reusing water will likely become an increasingly important strategy to balance the water needs of agricultural producers in the county with the needs of growing numbers of residential and commercial users. High-quality water is expensive, and reusing water can be a cost-effective and efficient way to increase quality water supplies. For water reuse to become more viable in Utah County, existing water infrastructure systems must be evaluated and made more efficient. Impacts on downstream users also need to be considered.



⁵⁸. <http://yourutahyourfuture.org/topics/water/item/59-background-water-in-utah>

IMPLEMENTATION

Utah County and individual cities could explore the viability of establishing local funds to match the offerings from the state Water Quality Revolving Fund. This additional funding for key water projects could increase the efficiency of agricultural and residential water use across Utah County and the state. Some support exists on the federal level for rural agricultural infrastructure projects, and matching that support at the county and state level would help bring water to unirrigated soils in Utah County.

- **It is recommended that county and city lawmakers establish smaller-scale funds for water or agriculture-based projects in Utah County.**
- **These local funds could then be matched by the state Water Quality Revolving Fund** to pay for crucial water projects that will improve water management and conservation in different regions.
- Water infrastructure projects suggested by communities, lawmakers, and regional water agencies would then receive needed funding. These projects could range from increasing water efficiency to expanding the amount of agricultural lands in Utah County.
- **State agencies should explore reusing water as a way to increase agricultural water supplies** across the state. These agencies should also create specific regulations to ensure the quality and responsible use of reused water.
- **Water organizations and state agencies should look for ways to improve the existing water-distribution system by reducing the amount of water lost through evaporation, pipe leaks, ground seepage, etc.**

EXAMPLES

The Central Utah Water Conservancy District encourages water conservation through rebates, loans, and programs that promote new water projects in Utah County and southern Salt Lake County.⁵⁹ In Utah County, the conservancy district has mainly focused on upgrading the Utah Valley Water Treatment Plant to provide municipal and irrigation water to communities.⁶⁰

In 2005, the Central Utah Water Conservancy District's Central Water Development Project (CWP) helped to provide water to Cedar Valley. The district purchased water rights from the former Geneva Steel Company and combined them with other ground and surface-water rights.⁶¹ As a result, more water was brought to an area that had previously limited water supplies for farming. The increased amount of water also helped the towns of Eagle Mountain and Saratoga Springs grow.

The 2015 Utah Senate Bill 216 allows the Office of Energy Development to issue a tax credit to an entity developing a high-cost infrastructure project.⁶² This provision could incentivize the development of agricultural water projects and increase water delivery to potential farming areas.

Because agricultural water supplies are being stressed by the demands of expanding residential and municipal development, California agricultural producers are increasingly looking into reusing water to meet irrigation demands.⁶³ State departments have outlined specific regulations for the quality of recycled water in order to mitigate negative effects on human and environmental health. In 2007, California's Sea Mist farms was the biggest user of recycled water in the world, and their studies showed that their use of recycled water resulted in soil and crop quality that was essentially parallel with those of a neighboring control site.⁶⁴

59. cuwcd.com/

60. cuwcd.com/drinkingwater/utah.htm

61. www.cuwcd.com/engineering/cwp/CWPbrochure.pdf

62. le.utah.gov/~2015/bills/static/sb0216.html

63. agwaterstewards.org/images/uploads/docs/recycled_water_and_agriculture3.pdf

64. agwaterstewards.org/images/uploads/docs/recycled_water_and_agriculture3.pdf

Promote Urban Agriculture and Community Gardening

Who can implement this: *City officials, communities, governmental organizations, and advocacy organizations*

Urban agriculture refers to the growing, processing, and distributing of food and other products in urban rather than rural areas. Urban agriculture connects residents in cities to food-growing processes that would normally be inaccessible to them. Urban agriculture positively affects communities, providing both a source of local and healthy food and a place for people to come together and strengthen community ties and relationships.

Urban agriculture includes green-roof gardens, community gardens, and other commercial and noncommercial food production efforts in urban areas. Urban agriculture is valuable because it allows city residents to become involved in and learn more about the food production process. Local gardens provide educational opportunities for residents of all ages, and the benefits of exposing elementary school students, for instance, to urban agriculture are particularly popular and well documented.⁶⁵ Utah County is already home to several existing pockets of urban agriculture that could connect the urban community to the agricultural sector socially and economically. Traditional agriculture could also be affected as urban residents become more aware of the experiences and benefits of agricultural production.



Accessory uses on small parcels of land are another option for agriculture in primarily residential areas. Being able to produce food for personal use or commercial sale can expand agriculture on these parcels, often considered “lost” from an agricultural standpoint. Streamlining accessory-use processes and educating residents interested in small-scale agriculture can expand the prevalence of agriculture in Utah County and promote a broader appreciation for larger agricultural efforts.

Urban agriculture further benefits cities by acting as green infrastructure, reducing storm water runoff, increasing greenspace, reducing the urban heat island effect, and converting vacant lots into lively spaces for food production.⁶⁶ Urban agriculture is also particularly beneficial to low-income and otherwise disadvantaged families because it provides low-cost food products and encourages people to better integrate with their local communities.⁶⁷

IMPLEMENTATION

It is recommended that city councils enact ordinances and work with the state legislature to provide tax breaks and other incentives for urban farming, particularly the establishment of community gardens.

Community gardening organizations should partner with local governments to pilot different forms of urban agriculture.

One of the most popular and widely implemented examples of this is temporary urban gardening, where gardens are planted in underused, vacant lots.⁶⁸ Through temporary urban gardening communities can combat blight and test the viability of more permanent urban agriculture.⁶⁹

If temporary urban gardens are successful, more permanent urban agriculture should be established. Cities can also work with their communities to bypass the temporary-garden stage and instead immediately implement more permanent community gardens and other forms of urban agriculture.

Individuals can adopt accessory agricultural uses on their property, which demonstrates their interest in agriculture on all scales while also increasing the supply of local food in their communities.

EXAMPLES

In 2015, Salt Lake County launched Farmlink, a program focused on connecting interested urban farmers with vacant lands that could be used for food production.⁷⁰ The program was incentivized through property tax reductions for landowners who were willing to lease their land for urban commercial farming.

Wasatch Community Gardens is the state’s largest community gardening organization, providing educational and financial resources to help neighborhoods, schools, and families begin community gardens. The organization runs near-weekly classes during the planting and growing seasons.⁷¹

Utah law allows for conditional agriculture on residential land.⁷² Currently, the local planning commission must approve the production of any value-added agricultural products grown as a conditional use on a case-by-case basis.

In 2013, Urban Agriculture Incentive Zones began to be established in California. These zones create tax incentives to encourage both commercial and noncommercial agriculture on lots between 0.1 and 3 acres in urbanized areas across the state.⁷³

65. www.cityfarmer.org/subchildren.html

66. [www.co.fresno.ca.us/uploadedfiles/departments/behavioral_health/mhsa/health%20benefits%20of%20urban%20agriculture%20\(1-8\).pdf](http://www.co.fresno.ca.us/uploadedfiles/departments/behavioral_health/mhsa/health%20benefits%20of%20urban%20agriculture%20(1-8).pdf)

67. www.ruaf.org/sites/default/files/UAM%2025-Cities,%20Climate%20Change%2039-42.pdf

68. www.huduser.gov/portal/periodicals/em/winter14/highlight4.html

69. www.usda.gov/documents/Rural-Infrastructure-Opportunity-Fund-FAQ.pdf

70. slco.org/urbanfarming/

71. wasatchgardens.org/

72. www.planning.utah.gov/Index_files/PDFs/ut5.2c.pdf

73. www.spur.org/blog/2013-10-02/california-s-new-urban-agriculture-property-tax-incentive

Encourage the Development of Innovative Agricultural Processes and Technology

Who can implement this: *Federal, state, and county officials; universities; governmental organizations; and advocacy organizations*

Technological innovation can increase the overall efficiency and economic feasibility of the agricultural industry. Research and development of agricultural technology need to be incentivized to help revitalize the farming industry.

Modern farms work much differently than those from just a few decades ago, primarily because of advancements in technology. Today's farms routinely use sophisticated technologies such as temperature and moisture sensors, aerial images, and GPS technology. Further improving agricultural technology will help increase crop productivity, reduce negative environmental impacts, increase worker safety, and decrease water, fertilizer, and pesticide use.⁷⁴

Technological innovations in agriculture also include vertical farming, drip irrigation, and aquaponics:

- Vertical farming is the practice of farming food in vertically stacked layers, using technology to control all environmental factors.⁷⁵ This agricultural technology helps increase crop production, conserve resources, and expand the availability of local food, especially in urban built-out areas.
- Drip irrigation is a form of irrigation that saves water and fertilizer through a controlled delivery of water through a network of tubes or pipes to the roots of plants.⁷⁶ This technology improves plant growth while allowing farms to use less water.
- Aquaponics is a system of aquaculture in which the waste produced by farmed fish or other aquatic animals supplies nutrients for plants grown hydroponically, which are then used to purify water.⁷⁷ Aquaponics uses less water than traditional farming, does not necessarily require soil, and improves yields compared to traditional farming methods.

Tax credits and other funding options are available at the state and federal level for businesses exploring green business practices and technologies, but agriculture-specific funding is far less common. State or county-specific tax credits or funding options should be used to help Utah farmers and businesses explore new technologies that could benefit agriculture across the state.

IMPLEMENTATION

- **It is recommended that state and federal agriculture organizations provide loan programs to incentivize farmers in pursuing new technologies to improve their businesses.**
 - **County lawmakers and farm organizations need to identify gaps in federal and state programs, and should establish more specific programs** to incentivize the development and exploration of new farming and ranching technologies.
- **Utah State University and other universities should continue to promote agricultural technology businesses through agricultural technology programs** and related research. University classes in agricultural technology should connect farmers in the field with students to give students real-world experiences while improving farm businesses.
- **Governmental and private farm organizations need to help farmers stay up to date on current technologies** and explore the viability of implementing technological updates to their processes and operations.

EXAMPLES

Houweling's Tomatoes is a sustainable greenhouse farm in Mona, Utah, that uses excess heat and CO₂ from an adjacent natural gas power plant to grow tomato plants. This heat that would otherwise be wasted is instead used to keep the greenhouse warm through the colder months, which allows the farm to grow tomatoes all year round.

Utah State University offers an Agricultural Systems Technology degree program, which combines studies in agricultural and biological sciences with courses in technical and business management skills.⁷⁸ The program provides valuable assistance and a solid foundation to aspiring farmers and researchers as they pursue new agricultural technologies and careers in agriculture.

The USDA's Natural Resources Conservation Service administers Conservation Innovation Grants for the development of new conservation technologies and practices.⁷⁹ Though mainly for governments and individuals, the grant is open to any person or business who establishes that their project benefits food safety, soil health, wildlife, and/or the economics of farming.

74. nifa.usda.gov/topic/agriculture-technology

75. vertical-farming.net/vertical-farming/glossary-for-vertical-farming/

76. extension.psu.edu/business/ag-alternatives/horticulture/horticultural-production-options/drip-irrigation-for-vegetable-production

77. www.nal.usda.gov/afsic/aquaponics

78. www.usu.edu/degrees/index.cfm?id=84

79. sustainableagriculture.net/publications/grassrootsguide/conservation-environment/conservation-innovation-grants/

Create Local Agricultural Commissions That Specifically Promote Agriculture in Individual Communities

Who can implement this: *County and city lawmakers, and communities*

Agricultural commissions are standing committees, created by individual cities, that strive to increase the visibility of agriculture in communities. They represent and advocate for the farming community, encouraging the pursuit of agriculture, promoting economic opportunities for farmers and ranchers, and preserving their community's agricultural businesses and lands.⁸⁰ Agricultural commissions are primarily focused on connecting local farmers and ranchers to resources that help agriculture flourish in each individual community.

Utah County farmers should continually take advantage of the increased networking, educational, and economic opportunities provided by agricultural commissions. These commissions allow farmers to be more involved in the decisions of local government, increasing communication between farmers, politicians, and city leaders. Improving the often-lacking dialogue between farmers and local leaders is important in identifying and resolving challenges and will ultimately strengthen the agricultural industry in Utah.

IMPLEMENTATION

Agricultural commissions are formed by a vote during a county or city council meeting. Massachusetts, where agricultural commissions have significant support, lists the following steps for the creation of an agricultural commission:⁸¹

- Identify leaders and organizers to explore the possibility of an agricultural commission in the area.
- Assess interest for an agricultural commission in the community. Talk to farmers, residents, boards and committees, and community decision makers.
- Gather the support of farmers and town leadership.
- Organize a public informational meeting.
- Invite farmers, residents, and the public through written letters of invitation, press releases, and newspapers articles.
- If possible, request that members of established agricultural commissions speak about why they organized, what they do, and the benefits to agriculture.
- Answer the questions: Is an agricultural commission important for our town? Do you think we should organize an agricultural commission in town?
- Gain commitment from participants to serve on an agricultural commission steering committee.
- Publicize newly established steering committee meetings.
- Draft an agricultural commission by-law and town meeting warrant article with input from town boards and town counsel.
- Research advocates and opposition.
- Present articles at a town meeting for discussion and vote. This presentation is provided by well informed and prepared advocates.

More information can be found in the Massachusetts Association of Agricultural Commissions' Toolkit for Organizing a Town Agricultural Commission.⁸²

EXAMPLES

In several of its cities, Massachusetts has agricultural commissions that focus on the unique agricultural issues facing each town and community. The Massachusetts Association of Agricultural Commissions supports agricultural commissions by coordinating the commissions' resources and relations with state and federal agencies, private and nonprofit organizations, and elected officials.⁸³ Existing agricultural commissions tackle a range of issues ranging from marketing coordination to local disputes, and their budgets range from \$0–\$1,000 per year.⁸⁴

The Utah Association of Conservation Districts fills a somewhat similar role, establishing separate districts across Utah and incentivize landowners to protect soil, water, and other natural resources.⁸⁵ However, conservations districts do not focus specifically on agriculture.

^{80.} www.massagcom.org/AgComsMission.php

^{81.} www.massagcom.org/Startup.php

^{82.} www.massagcom.org/AgComToolkit.php

^{83.} www.massagcom.org/AboutMAAC.php

^{84.} www.massagcom.org/AgComsOverview.php

^{85.} www.uacd.org/about-uacd.html

SECTION THREE: Opportunities for Education and Outreach

Providing agricultural education at a variety of scales is crucial for promoting agriculture in Utah County. To improve agriculture's economic and social viability, Utah's universities should continue to research technologies and provide agricultural education alongside primary and secondary school districts. State governmental organizations and nonprofit organizations should also explore ways to better educate residents about local food production and to educate lawmakers regarding the importance of agriculture to the county and state.

Strengthen Relationships with Utah Universities to Research Agricultural Strategies, Economics, and Technologies; Model Agriculture Futures; and Promote Agricultural Education

Who can implement this: *State and county officials, universities, advocacy organizations, and agricultural producers*

Local research conducted by academics and researchers will help Utah County farmers better understand and improve agriculture in their region. The circumstances for farming are constantly changing in Utah County and across the state as urban and suburban development expands and economic markets continue to shift. Researchers at Utah State University should model a variety of agriculture scenarios to help plan for the future of farming in Utah County. They should also establish new strategies that will benefit food growers and expand the state's agriculture industry.

Researching new agricultural technologies and ways to improve older technologies is crucial in making farming more efficient in terms of time, water, and crop yield. Continuing to research agriculture will help secure Utah's future food supply and economic growth, especially as it offers specific suggestions for what strategies and tools will best benefit local agriculture. In addition to local universities, private-sector incentives will be important resources in helping Utah develop advancements to agricultural technology and strategies.

Some agricultural technologies focus on increasing crop yields and exploring new ways to produce food. For example, two recent and widely renowned agricultural technologies are vertical farming and aquaponics. Utah County farmers may be unaware of some of these innovations and their benefits to crop yield and efficiency and should be educated about these and other technological advancements in real-world situations.

Since discoveries made in a lab are not readily available to farmers, outreach is an important element of this strategy. Farmers need to be informed of the latest agricultural strategies and production methods so they can better adopt and use such innovations. Increasing farmers' knowledge on these topics could result in higher yields, less risk, and greater profitability.

IMPLEMENTATION

- **Utah State University** has the academic infrastructure and resources to implement this strategy. The university **should enhance its partnerships with Utah County agricultural producers so that it can research agriculture** and strengthen communication between the school and farmers. Utah State University should also create a scope of needs to find out how to achieve this goal and to look for ways to fund research. Research should be focused on topics that will most benefit Utah agriculture.
- **Utah County universities (particularly Brigham Young University and Utah Valley University) should continue to contribute to agricultural research.** An educational partnership between Utah State University and the universities in Utah County is necessary to holistically explore food-production strategies and the future of agriculture in the county.
- Universities should do the following:
 - Determine a scope of needs and goals to determine a short-term focus for strategy research, modeling, and/or education.
 - Determine the amount of funding needed for research and identify funding sources.
 - Decide which universities and agricultural producers will be involved and outline the roles they will undertake in the research process.
 - Form partnerships between universities and agricultural producers and begin research, modeling, and education efforts.

EXAMPLES

Utah State University has some of the most varied and robust agricultural education programs in the country. It offers extensive information on many agricultural topics, ranging from agricultural education to pest management.⁸⁶ The university's Agricultural Experiment Station is dedicated to researching agriculture and improving the availability and quality of natural resources for all Utah residents, and the College of Agricultural and Applied Sciences has departments dedicated to the study of applied economics in Utah's rural areas, animal and veterinary sciences, plants and soils, sciences and technology, environmental planning, and how to help the future of agriculture in Utah County.⁸⁷

Utah State University is the state's leading institution in agricultural experimentation and technology research.⁸⁸ Committed to ensuring that the United States produces a self-sufficient food supply, the university investigates new technologies and operates labs that research "food safety and processing, plant and animal genetics, and economic and social forces that shape families and communities."⁸⁹

^{86.} extension.usu.edu/agriculture

^{87.} caas.usu.edu/

^{88.} uaes.usu.edu/

^{89.} uaes.usu.edu/hm/about-us

Educate Utah Children About Agriculture

Who can implement this: State, county, and city officials; communities; advocacy organizations, agricultural producers; and school districts

The best way to ensure that agriculture will be valued by future generations is to connect children with farms in ways that will leave a lasting impression. Through creating unique educational agricultural experiences, which are not currently covered by the state's curriculum, future generations will be educated about local food and about the food-production process. These experiences will help children understand where their food comes from while also opening up communication among farmers, teachers, and community members and promoting agriculture as a possible career path.

In the short term, individual communities and schools should create programs that provide children with hands-on farming experiences. Ideally, these small-scale efforts will eventually result in changes to the statewide curriculum, establishing agriculture as a fundamental part of Utahns' education.

IMPLEMENTATION

- **Communities and school boards should create and promote programs that connect schools to farms.** Additionally, schools and local farms should coordinate to establish these opportunities under existing programs, especially if expanded or made more accessible.
- **School districts should evaluate and revise existing curriculum to make agricultural education a priority.**
- It is recommended that educators and farmers work together to advocate for agricultural education becoming a bigger part of school curricula. Outreach should be made to local lawmakers as well as statewide organizations.
- Policymakers, educators, and farmers need to work together to fill in gaps in agricultural education; they should establish new programs for students at every grade level.
- Zoning laws could be modified to allow small livestock animals, like chickens and 4-H animals, to be raised on school property as part of agricultural education programs.

EXAMPLES

The Utah County Farm Bureau and Utah State University Extension hosts Farm Field Days every year, which allows elementary-school students to visit local farms and directly experience local agricultural. Farm Field Days can be organized by any group of educators and agricultural producers, and the Utah Farm Bureau has funds to meet the cost of separately organized Farm Field Days.⁹⁰ The learning stations at Farm Field Days are designed to complement the curriculum objective, set by the Utah Office of Education, to maximize educational benefits for students.

Utah County 4-H established an Urban Sheep Project that allows students in the city to raise their own sheep on a nearby farm, providing them with valuable firsthand experience with livestock.⁹¹

The Utah State Office of Education has partnered with many Utah agencies and businesses to establish Agricultural Education Pathways, a program for high-school students interested in pursuing a career in one of five different agricultural focus areas. Pathways explores the different ways students can better understand, value, and become involved in agriculture in Utah. However, this program is not part of the statewide required curriculum and exists only as elective high-school courses that are limited in availability depending on location.⁹² Many new agriculture jobs are opening up nationwide, and making agriculture a larger part of Utah students' education will encourage them to pursue career opportunities in agriculture and strengthen the industry within the state.

The Future Farmers of America (FFA) is an organization for students looking to one day become part of the agricultural industry in any form. The FFA has individual chapters in each state, and the Utah branch provides scholarships and learning opportunities for Utah students interested in agriculture.⁹³



⁹⁰. utah.agclassroom.org/htm/outreach/farmfield/ffdtps

⁹¹. utahcounty4h.org/

⁹². schools.utah.gov/cte/ag/

⁹³. www.utffa.org/index.php

Educate Landowners and Residents About the Value of Agriculture and Local Food

Who can implement this: *State and county officials, universities, governmental organizations, advocacy organizations, and agricultural producers*

Utah residents care about agriculture. The visioning process in Envision Utah's Your Utah, Your Future revealed that Utahns want the state's agricultural sector to thrive and expand. Many agricultural education efforts are directed toward students, leaving adults with few ways to learn about agriculture and its importance in their communities. A broader agricultural education initiative would provide Utah County residents with information and encourage them to purchase local products and vote in favor of local farmers and ranchers, thereby helping strengthen the viability of local food production in their communities.

Understanding and connections to agricultural lands has steadily decreased among urban residents. Outreach efforts should be made to help people learn about the challenges farms face, understand that converting farms into urban lands negatively affects the state's ability to produce local food, find out where fresh food can be purchased, recognize the environmental tradeoffs associated with having food produced far away versus locally, and appreciate the value of having fresh food available in the region.

IMPLEMENTATION

- **Statewide organizations (like the Utah Department of Agriculture and Food), universities (like Utah State University), private organizations (like the Utah Farm Bureau), and agricultural producers should strengthen existing partnerships** and explore the best ways to educate the public about agriculture.
- This team or organizations and individuals should create an outreach strategy to educate landowners, residents, and other groups of people who may struggle to find information about supporting agriculture in their communities. **The group should reach out to seasoned farmers, gardeners, food preservers, and other experts in order to enhance general education** and better understand the opportunities and challenges inherent in Utah County's agriculture.
- **This team should hold workshops, teach free classes, and/or create deliverable documents that aim to increase general and specific knowledge about agriculture** for various groups of Utah County residents. These efforts should be outreach driven in the hopes of educating a diverse range of people.

The county and state fair should continue to educate Utahns about the benefits of local agriculture. While venues already include booths about farming and ranching, these events should include more information about the condition of agriculture in Utah and inform attendees about the benefits of farming and how they can encourage and preserve agriculture in their communities.



EXAMPLES

The Inter-Faith Food Shuttle of Raleigh, North Carolina, runs a teaching farm where volunteers from any profession can learn about agricultural production by obtaining hands-on experience at a working farm and growing food for the local community. This teaching farm is a rare example of a program that allows adults to learn more about agriculture and get a glimpse into how food is grown.⁹⁴

Utah State University Extension has a strong history of agricultural outreach. The USU Food Sense program educates community members at local farmers markets and promotes fresh, local food. Concerned lawmakers and organizations should work directly with the university to better inform the public about agriculture and local food. Other organizations or universities could also adopt USU's model of outreach and education.⁹⁵

^{94.} foodshuttle.org/we-teach/agriculture-training-programs/teaching-farm/

^{95.} extension.usu.edu/

Educate Elected Officials Across the County About the Importance of Agriculture and Their Roles in Promoting Its Future

Who can implement this: *State, county, and city officials; universities; governmental organizations; advocacy organizations; and agricultural producers*

Support for agriculture in Utah County among elected officials can vary widely depending on the platforms and policies of county commissioners, mayors, and city council members, especially as new people with new ideas are being voted in with every election cycle. However, agriculture should be a priority for all elected officials due to its tremendous economic and cultural impacts on life in Utah County.

Though education about the importance of agriculture is crucial for younger generations, older generations should not be overlooked in farming education efforts. With this in mind, elected officials in Utah County need to be continually educated about current conditions and future possibilities for agriculture in Utah County. Some regions across the nation have seen significant positive impacts from hosting farm tours for elected officials, which have helped leaders to better understand agriculture's role in their communities. These tours have also allowed leaders to receive hands-on farming experience that can help them understand the benefits of agriculture and the opportunities and challenges farmers and ranchers face.

Policymakers would also benefit from assistance in understanding and navigating the grant writing process to apply for funding that would support agriculture in their jurisdictions. The grant writing process needs to be made more accessible and approachable through educational programs. It may also be helpful for county and city officials to hold grant writing workshops with farmers.

IMPLEMENTATION

- **Agricultural experts** from universities, state agricultural organizations, the farming industry, and advocacy organizations **should continue to reach out to elected officials to help lawmakers understand the importance of agriculture in Utah County.**
- **These experts should hold yearly field days to educate newly elected officials about farming and to connect them with important agricultural producers and agricultural businesses.** Building relationships among elected officials, agricultural experts, advocacy organizations, and individual producers is crucial in ensuring that lawmakers have all the information needed to understand and create laws regarding agriculture.

EXAMPLES

The Utah Farm Bureau is politically active and involved in educating lawmakers about local and statewide issues that affect agriculture. The organization believes that change happens at a grassroots level and works closely at the county level to implement changes. The Utah Farm Bureau also promotes agricultural education at all levels, educating community members from lawmakers to students about different aspects of agriculture.⁹⁶



96. www.utahfarmbureau.org/

GOAL 2

Encourage Development Patterns and Implement Measures That Protect Agricultural Land and Water

The physical loss of farmland is one of the biggest challenges agriculture is facing nationwide and is often irreversible. The acreage of fruit production alone in Utah was cut in half between 1987 and 2006. If this trend continues, nearly all of Utah's orchards will be eliminated by 2050, with very few remaining areas that are suitable for growing fruit trees.¹ As residential development continues to require large shares of Utah County's water supply, the availability and allocation of water has become another concern and source of tension for both agricultural and residential users. If Utah County wants to provide local food and agricultural products to its residents in the future, it needs to protect existing and future agricultural lands and water.

Protecting Utah County's agricultural lands and preserving natural resources like water and soil should be priorities now more than ever. Population growth across the state threatens to consume additional farmland, and water resources are reallocated with every new construction project. Existing farmland can be protected from encroaching development through a variety of means, especially if residents, developers, and lawmakers understand the actual social, economic, and environmental value of agriculture.

AGRICULTURE CONTRIBUTES MORE IN REVENUE THAN IT REQUIRES IN EXPENDITURES

Farmland requires \$0.37 in public services for each dollar paid in taxes, while residential land requires \$1.11 in services for every dollar paid in taxes.²

-
1. utah.agclassroom.org/html/outreach/farmfield/ffdtips
 2. utahcounty4h.org/

SECTION ONE: Proactive Preservation Measures

Cities often treat farms and ranches as places to store land and water until they are needed for new housing developments and businesses, providing revenue for the city. Patterns for residential and commercial development determine how quickly farms and ranches will disappear in the county. When development is compact, for instance, more land and water stays in agriculture. If policymakers want to preserve agriculture in Utah County, however, they must be more proactive. The following strategies can help policymakers address and combat the problems that threaten agriculture's survival.

Use and Fund Conservation Easements to Protect Farmland

Who can implement this: *State, county, and city officials; communities; governmental organizations; advocacy organizations; and agricultural producers*

To protect land for future generations, state and local policymakers should work together to fund conservation easements. A conservation easement is a legally binding agreement that restricts the uses of land and/or prevents a piece of property from being developed. It limits certain rights—often the owner's right to subdivide or develop—associated with that property. A private organization or public agency then enforces the landowner's promise not to exercise the restricted rights. Landowners essentially forfeit these restricted rights in perpetuity, but in certain cases, conservation easements can be established for finite periods of time, though these short-term easements tend to be continually renewed.³

An easement selectively targets and restricts only those rights necessary to protect specific conservation values and is individually tailored to meet a landowner's and community's specific needs. Because the land remains privately owned with the remainder of the rights intact, an easement property continues to provide economic benefits through its association with job creation, economic activity, and property taxes.

Conservation easements operate similarly to transfer of development rights programs, except that the development rights need not be evaluated by a government agency and sending and receiving areas do not need to be established. Landowners either voluntarily donate or sell an easement, which allows them to trade a portion of their property value for a significant one-time income or tax benefit while still retaining many private property rights. A landowner and an easement purchaser, typically an agency, negotiate the fair market value of the development rights being restricted, and then those rights are sold and documented via the recording of a conservation easement.

Donating conservation easements is considered a charitable donation under the federal tax code, and those who donate are eligible for federal income tax deductions. In 2015, the U.S. Congress enacted an enhanced federal tax incentive for conservation easement donations, which, depending on the value of the easement, permanently increased the tax deductions possible for landowners.⁴

Conservation easements can shield farmers from pressures to sell land to developers and allow them to continue their farming operations or retire with significant income, passing their agricultural operations to those who will continue farming on the land. The reduction in property value resulting from the conservation easement makes selling the land to a farmer, rather than a developer, more feasible.

Conservation easements should be created only on lands that are likely to be viable farms for many years to come. Otherwise, the easement will serve to only restrict development without guaranteeing continued food production.

Because of the limited funding available for conservation easements, it is also important to target the most irreplaceable lands, such as orchards, for preservation.



3. www.nature.org/about-us/private-lands-conservation/conservation-easements/what-are-conservation-easements.xml

4. s3.amazonaws.com/landtrustalliance.org/ConservationEasementTaxIncentiveBrochure2016.pdf

IMPLEMENTATION

Although a number of private and public organizations are already involved in managing conservation easements in Utah, Utah County may want to charter its own agricultural land trust with a board of directors comprising local farmers and others. Such a trust would preserve local control of easements. The trust could seek and hold funding, buy development rights of farmland, advise county officials on a variety of agricultural issues, and coordinate with all conservation districts in the county.

- **Existing government and nonprofit organizations should work together to specifically treat agriculture as a valuable resource by promoting conservation easements in Utah County.**
- **The Utah Legislature should explore new and existing options and implement long-term mechanisms for buying conservation easements** on critical farmland best suited for long-term agricultural production.

The biggest challenge to establishing conservation easements is funding. Below are several options for providing a large and reliable pool of money for conservation easements.

Funding Options for Conservation Easements:

- Roll-back taxes - When greenbelt designated farm lands are removed from agricultural use, invest the required "roll-back" taxes into a county farmland fund such as one managed by a county agricultural land trust as suggested above. The rollback tax is the difference between the lower taxes paid while the land had greenbelt designation and the taxes which would have been paid without the designation.
- Property tax fraction - Apply some fraction of the county's share of property taxes to a farmland fund. This funding option could be limited to years with adequate or increased tax receipts to minimize impact on other county responsibilities.
- Federal matching grants - The 2014 Farm Bill made billions of federal dollars available dedicated to match other conservation funding used to protect farmlands, ranchlands, grasslands, wetlands, and forests across the country. This federal bill and many other funding agencies require matching funds, usually at a 1:1 ratio. The county should therefore set up a mechanism such as the agricultural land trust mentioned above to attract, hold, and manage the funds required to match federal and other available funds.
- Bonding - Allow county voters to vote on a bond issue for farmland preservation. Critical wildlife and/or recreation areas could be included in the bond if that is more attractive politically. The Trust for Public Lands can advise on the best ways to publicize and organize how to pass such a bond.
- Tax credits – The Utah legislature could pass a bill awarding state tax credits to those who contribute to a conservation easement.

- Real estate transfer taxes: To purchase conservation easements, many counties across the country rely on taxes that are generated as a percentage of real estate sales. In Utah, the price of real estate transactions is not disclosed. However, sales are public information, and a small fee could be applied to real estate transfers based on a county assessment before the sale. This tax would essentially require those who benefit from destroying agricultural land to pay a fee to help preserve it in other places.
- Sales taxes - The state legislature has made attempts to pass a bill allowing for a local sales tax of 1/8 of 1% on the purchase of agricultural land and conservation easements for open spaces.
- Special district taxation: If agricultural conservation districts were established as "special districts," they would be authorized to tax or spend public funds that receive tax-exempt status.

The LeRay McAllister Critical Land Conservation Fund provides grants to support the conservation of critical agricultural lands, wildlife habitats, and other lands vital to different communities across the state. This fund is highly dependent on receiving money from the state legislature and is not as reliable a resource as it could be.⁵

County lawmakers and stakeholders are interested in developing a narrower, more focused farmland fund that would receive more consistent funding from the legislature. County and state lawmakers would have to work together to address and resolve challenges resulting from rising real estate prices and the pressures on farmers to sell land to developers.

EXAMPLES

Utah has many conservation easement programs of varying scales and for different areas. Some of these programs and organizations include: the Bear River Land Conservancy, the Ogden Valley Land Trust, the Summit Land Conservancy Easement Program, the Nature Conservancy Easement Program, and the Utah Open Lands Easement Program.⁶

Massachusetts has a conservation easement program specifically designed to benefit agriculture: "The Agricultural Preservation Restriction (APR) Program is a voluntary program that offers a non-development alternative to farmland owners for their agricultural lands who are faced with a decision regarding future use and disposition of their farms. The program offers farmers a payment up to the difference between the "fair market value" and the "fair market agricultural value" of their farmland in exchange for a permanent deed restriction, which precludes any use of the property that will have a negative impact on its agricultural viability."⁷

Pennsylvania takes an unconventional approach by using a cigarette tax, which funds 45% of the state's conservation easements. The remainder of the cost is funded by county and state government.⁸

5. planning.utah.gov/leraymcallister.htm

6. wildlife.utah.gov/cwocs/conservation_private_lands.pdf

7. www.mass.gov/eea/docs/agr/landuse/apr/apr-brochure.pdf

8. pagrowinggreener.org/issues/farmland-preservation/

Identify Specific Uses for Agricultural Lands and Prioritize Which Lands Should Be Preserved or Undergo Long-Term Conservation Efforts

Who can implement this: *County and city officials, governmental organizations, and advocacy organizations*

Utah County and its cities, working with the Utah Department of Agriculture and Food, should determine the value of agricultural lands by analyzing and comparing the attributes of farmable lands. This process, combined with community feedback, would help officials identify the most promising farmlands in the county and determine which lands should be preserved. In order to establish a meaningful valuation of agricultural lands in Utah County, data needs to be gathered to better understand where different types of crops grow best and where there is potential for farm expansion on underutilized land. Spatially identifying these critical lands is an important step in helping policymakers make decisions about preservation.

If land is determined to have of a comparatively high agricultural value, steps can be taken to prioritize its preservation for farming over other uses like single family housing.

IMPLEMENTATION

Identifying and prioritizing agricultural land for preservation includes the following steps:

- Involving the community in a countywide area mapping exercise to help determine which agriculture lands may qualify for preservation based on factors such as: where crops are currently being grown, soil quality, water availability, slope, soil drainage, soil permeability, ecology, micro climates and other environmental factors.
- Collecting and studying soil samples from farmlands for factors such as salinity, fertility, and more. The U.S. Department of Agriculture keeps current records of the soil quality across the state, rated on a 5-point scale.⁹ This USDA grading could be used to determine which soils in Utah County should be best protected, though additional testing could help confirm their findings.
- Analyzing onsite water availability, including both the quantity and quality of water resources.
- Interviewing local farmers to determine the growing history, cultural value, and other important factors of farmlands.

Local governments should use Land Evaluation and Site Assessment (LESA) Systems to help determine where prime agricultural lands exist in their communities. Creating an effective LESA System can be a lengthy process, but they can be crucial in understanding which agricultural lands should be prioritized and targeted for preservation.¹⁰

EXAMPLES

Sacramento Area Council of Governments analyzed their region with help from the University of California, Davis, and created different scenarios for the future of agriculture. Those scenarios provided the council with data that helped them understand what types of growth would best preserve key agricultural lands.¹¹

Most places that have attempted to prioritize the preservation of farmland have created systems in conjunction with funded preservation activities. In 2000, Michigan passed the Natural Resources and Environmental Protection Act, which created the Michigan Agricultural Preservation Fund. The fund provides state matching dollars to local governments for the purchase of development rights from qualified farmland.¹² The fund requires local governments to use a scoring system to rank parcels of land under application in terms of priority for preservation.

9. www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/?stateld=UT

10. www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1047455.pdf

11. www.sacog.org/rural-urban-connections-strategy

12. www.michigan.gov/documents/MDA_REVMAPFBAApplicationProcess_117312_7.pdf

Establish Agriculture Protection Areas in Utah County to Support Farm Operations at All Scales

Who can implement this: *State, county, and city lawmakers; communities; governmental organizations; and agricultural producers*

Agriculture Protection Areas (APAs) are designed to protect farming and ranching operations. Agricultural operations on land within an APA are given the “highest priority use status,” meaning they are valued from a regulatory perspective above residential and commercial uses.¹³ APAs are established for 20 years and can be modified, renewed, or terminated at the end of that period.

APAs help protect farmers against nuisance lawsuits, unreasonable restrictions from state and local agencies on farm structures and practices, changes in zoning designations, and roads cutting through their farms. They also serve to notify adjacent land buyers that they are purchasing land next to a protected farm operation.¹⁴ APAs help prevent smaller farms from being sold to developers, which makes more small farms available to beginning farmers and helps mitigate some of the inherent risks of small farms. These protected areas enable farmers to run their business with greater peace of mind and less worry about external forces disrupting their livelihoods.

Currently the requirements for establishing an Agriculture Protection Area are as follows:

- Each APA must be a minimum of 20 contiguous acres. A proposal for APA must be signed by the owners of a majority of the land within the area and include the following information:
 - The boundaries of the potential APA
 - Any limits on agricultural production in the area
 - The names of owners of record of the land within the area
 - The number of acres of each parcel within the area.
- Land may be added or removed from an APA at any time if a proposal to do so is approved by the county commission.

IMPLEMENTATION¹⁵

Government and nonprofit organizations should educate local landowners about the benefits and limitations of APAs to help communities begin the process of establishing APAs.

The Utah County Assessor's Office should make an easily accessible APA application available online to increase the transparency of the process. Uintah County's APA application is currently available online and breaks the process into steps that are easy to understand and follow.¹⁶

City councils and the Utah County Commission should pass an ordinance allowing for the automatic establishment of APAs that meet the minimum acreage requirement for agricultural production.

The Utah legislature should lower the minimum APA acreage to five acres so that more lands can qualify for protections.

Agricultural producers should work together to establish APAs in their communities. Though state law allows for the creation of APAs statewide, individual communities are responsible for overseeing the establishment of APAs in their jurisdictions. **Cities should establish committees to identify possible APAs and work with landowners to simplify the application process.**

EXAMPLES

Utah state law allows for the creation of APAs statewide, with each county adapting and modifying the process to meet their specific needs and to improve implementation.¹⁷ The Utah County Code specifically addresses APAs and establishes an APA Advisory Board to assist in the creation of APAs across the county.¹⁸

Today Utah County has over 70 APAs on every side of Utah Lake. These APAs are valuable tools for protecting farmland in both urban and rural areas across the county.

13. extension.usu.edu/cache/files/uploads/AGRICULTURAL%20PROTECTION%20AREAS10-12.pdf

14. extension.usu.edu/cache/files/uploads/APA%20brochure.pdf

15. www.planning.utah.gov/Index_files/PDFmncpl/vw7.25.pdf

16. co.uintah.ut.us/document_center/CommunityDevelopment/Agricultural_Protection_Application.pdf

17. www.planning.utah.gov/Index_files/PDFmncpl/vw7.25.pdf

18. www.co.utah.ut.us/apps/WebLink/Dept/ATTY/Chap26_1.pdf

Develop Transfer of Development Rights (TDR) Programs

Who can implement this: *County and city officials, agricultural producers, and developers*

County and city policymakers should work to create an efficient transfer of development rights (TDR) program. TDR programs would enable landowners to preserve farmland by transferring development to more appropriate locations.

TDR programs are market-based tools that encourage and facilitate the voluntary transfer of development from places, such as farmland, where development is undesirable to locations where development is encouraged.¹⁹ Transferring development rights helps preserve critically important lands, but for a TDR program to work efficiently the government must clearly define the process of facilitating transfers.

In a TDR program, landowners of a property gaining the development rights (the receiving area) compensate the owners of a donating property (the sending area). A deed restriction is then permanently placed on the property that donated its development rights. For a property to qualify as a receiving site, it must be suitable for additional development, with services and infrastructure either in place or planned.²⁰

Implementing a TDR program for Utah County would provide additional options for farmers who want to profit from some of the development potential of their land without having to subdivide their property or sell it completely. It would enable them to continue farming and keep the land in agricultural use.

In order to implement a TDR program, however, cities or counties will need to address the following challenges:²¹

- Deciding whether the TDR program will be limited to a single municipality or if it will be cross-jurisdictional. Cross-jurisdictional agreements can be set up if necessary.
- Inadequate receiving areas as a result of developmental pressures. Ill-equipped receiving sites can result in TDR programs failing, so jurisdictions must designate appropriate receiving areas throughout the transfer process.
- Ensuring the presence of adequate infrastructure. The receiving areas must have sufficient infrastructure (e.g. roads, utilities, and stormwater facilities) to support the added density and population growth.
- The use of zoning and development standards in ensuring the program's viability. TDR programs are market-based mechanisms that succeed best when there is a high demand for development. Though jurisdictions cannot control the market, the zoning and development standards in different urban and rural areas help determine the forms of viable development and how willing developers may be to transfer development to other areas.
- The need for active support and leadership. Most successful TDR programs have strong leadership that focus on public outreach and education, program advocacy, and transaction support.



19. depts.washington.edu/open2100/pdf/3_OpenSpaceImplement/Implementation_Mechanisms/transfer_development_rights.pdf

20. depts.washington.edu/open2100/pdf/3_OpenSpaceImplement/Implementation_Mechanisms/transfer_development_rights.pdf

21. classic.commerce.wa.gov/Documents/TDR-WA-04-09-08.pdf

IMPLEMENTATION

Establishing a TDR program within a municipality or region generally involves the following basic steps:²²

1. Establishing a TDR as a voluntary option with administrative provisions within the county or municipal zoning ordinance.
2. Identifying the sending area. A sending area has significant conservation value and is usually a defined geographic area, but it can also be based on specific locational criteria.
3. Determining the number of TDRs allocated to each landowner within the sending area. This number is usually determined through a simple mathematical formula—e.g., one TDR for every five acres. Most municipalities establish some minimum parcel size for a landowner’s eligibility to transfer development rights. The county or municipality must determine if the TDR allocation formula “nets out” constrained lands—i.e., those not easily buildable and which may have reduced development value.
4. Establishing the procedure for severing development rights. Usually this procedure is written as part of the zoning ordinance provisions and requires the use of a Deed of Transferable Development Rights document. The ordinance can include a sample deed document approved to form by the county’s or municipality’s solicitor. The procedures must also require that an executed deed be recorded with the county recorder before a receiving area’s proposal to acquire development rights through TDR is approved.
5. Establishing the procedure for permanently protecting the land from which the development rights were severed. Normally this procedure requires the use of a restrictive covenant, or preferably, a conservation easement held by a third party.
6. Identifying the receiving area. A receiving area is planned to accommodate growth and preferably already has public utilities (such as water and sewer) or has plans for them. Receiving areas can be residential, commercial, industrial, institutional, or any combination thereof. Preferably, a municipality or region should have previously identified both the sending and receiving areas during a comprehensive plan update process.
7. Creating plan-submittal requirements for the development of a receiving area. A development subject to TDR receipt can be made a conditional use within the zoning ordinance, or participation in a Traditional Neighborhood Development Overlay District can be made subject to the purchase of some level of TDRs.

EXAMPLES

Mapleton, Utah, uses a TDR program to preserve critical environmental areas, particularly the foothill areas that lie east of the city. The Mapleton TDR program promotes the preservation of agricultural land, rural open space, scenic vistas, sensitive lands, natural hazard areas, and places where delivery of public services would be difficult and/or expensive, such as hillsides and mountainsides.

Sending areas are designated in the Mapleton general plan. The maximum density of the proposed development cannot exceed the maximum density of the site’s general plan designation. In deciding whether or not to approve development on a receiving site, the city council must consider the compatibility of the proposed development with surrounding development as well as consistency with the general plan and compliance with the development code. The city council can also determine lot sizes and other development standards, including density.²³

22. conservationtools.org/guides/12-transfer-of-development-rights

23. smartpreservation.net/mapleton-utah/

Encourage More Efficient Agricultural Water Systems and Practices

Who can implement this: *State, county, and city lawmakers; communities; governmental organizations; advocacy organizations; agricultural producers; and water conservancy districts*

All water in the Jordan River Basin is connected. Water across the basin is used for a variety of residential, agricultural, and other purposes at different points within the watershed. Different cities, communities, and individuals should work together to use this water more efficiently and to conserve water on a basin-wide scale.

However, many of these efficiency and conservation efforts need to first be explored and incentivized by the county, its cities, and regional water agencies. Because changing water usage behavior currently has no personal benefits, many individuals have few incentives to work toward more efficient water use. And though some conservation measures may decrease the amount of water diverted, they may also increase the overall depletion throughout the basin. For this reason, conservation is best looked at from a basin-wide perspective.

Cities across Utah also face challenges in managing water and water rights within their municipalities. Oftentimes these cities end up stockpiling water, which they do not know how to best use. Assisting cities in managing their water rights will help preserve water, encourage a broader understanding of water in the basin, and avoid artificial shortages when allocating water to different uses. Many conservation measures, such as maintaining or lining ditches or canals, could also benefit from greater assistance from the state or other entities.

Regional Water Agencies can fill in these gaps in knowledge and management and allow regions to pool resources. They also allow water issues to be discussed and solved on more local scales, avoiding statewide political battles that are all too common when discussing water in Utah.²⁴

IMPLEMENTATION

- **Lawmakers, government organizations, and nonprofit organizations should support projects that conserve water** such as: drip irrigation systems, lining canals, soil management, and developing efficient irrigation equipment.
- **State, county, and city officials should incentivize water conservation at larger scales.**
 - Organizations and policymakers should help producers and communities gain a broader understanding of water systems and water management in order to motivate county residents to be more efficient when using water.
 - State, county, and city lawmakers should provide financial motivators like tax breaks and tax credits for producers and community members who conserve water and/or implement better water conservation practices.
- **The Utah legislature, the Utah County Commission, and individual city councils should encourage and support existing organizations that manage and conserve water on a regional scale** in Utah County and throughout the state. Organizations like Regional Water Agencies or Water Conservancy Districts can serve as a powerful tool for regions looking to more efficiently use and conserve their water.
 - Based on support from community and local lawmakers, state legislators would need to implement changes to water management structure.
 - Depending on the needs of residents and the goals of implementing changes, individual districts should be created on a basin-wide, county, or community scale.

EXAMPLES

California's Department of Water Resources focuses on Integrated Regional Water Management (IRWM) as a way for regional water managers and management groups to make local and regional investments in water infrastructure and tackle local water issues.²⁵ California has 48 IRWM regions, which cover 87% of the state's geographic area and 99% of the state's population. Each region has its own challenges and resources available to address water issues. California's IRWM served an important role during the 2014 drought, allowing different geographic areas across the state to conserve water and combat unique challenges on both regional and statewide scales.



²⁴. www.rwah2o.org/rwa/programs/wep/

²⁵. www.water.ca.gov/irwm/

Use Alternative Water Transfer Options to Stop Buy-and-Dry Practices

Who can implement this: *State and city officials, governmental organizations, agricultural producers, and water conservancy districts*

As residential and municipal development puts pressure on lawmakers to secure water rights, cities will sometimes purchase agricultural water rights and lands, transferring them away from agricultural uses. Because of this pressure from development, producers are incentivized to sell their water rights, often having to take their lands out of agricultural production.²⁶ Alternative water transfer options will allow cities to allocate water while still preserving agricultural lands. They will also give farmers more options of what to do when their water rights become more valuable because of encroaching development.

Alternative Water Transfer Options:

Fallowing agreements: In a fallowing agreement, farmers and water managers state that the city will pay farmers to let a certain percentage of their land go uncultivated instead of transferring (or leasing) the water that would have been used on that land to urban uses.²⁷ Fallowing agreements give farmers and ranchers a way to temporarily, rather than permanently, cash in on some of their water rights.

Alternative transfer methods (ATMs): ATMs are structured agreements between agricultural producers, water managers, and local lawmakers that allow water to be transferred to a new use while minimizing impacts on the local economy and providing funding to the agricultural producer.²⁸ These methods typically outline how to optimize the agricultural and nonagricultural benefits of remaining lands after the water has been transferred. ATMs also generally include mitigation measures to help minimize impacts on the local community and environment.

Transfer of development rights (TDR) programs: TDR programs can be used to dissuade cities from unnecessarily annexing open spaces. Some agricultural lands may be rendered dysfunctional or noncompliant through unnecessary annexation, especially when the annexation only occurs to secure water rights for new development. Utah County's cities should only annex land when it benefits all members of a community.

IMPLEMENTATION

- **City councils and planners should work closely with farmers and ranchers to use water transfer options that will keep agricultural lands in production.** City councils should pursue alternative water transfer options rather than transferring water rights from agricultural to urban uses without exploring all options.
- **City councils and planners should** identify which agricultural lands have been taken out of production through buy-and-dry practices in the past and **explore ways to return water rights to farmers so they can again use the lands for agricultural production.** All transfers must be under a willing-buyer, willing-seller agreement.

EXAMPLES

A Colorado bill specifically designed to combat buy-and-dry practices was signed into law after the state's 2014 legislative session.²⁹ The bill allows local government to approve any development that transfers the water rights from agricultural to domestic uses. To preserve water even as some agricultural lands are developed, the bill also limits the amount of water that can be used for watering grass on residential lots that have replaced agricultural lands.

26. www.wateronline.com/doc/farming-america-shifts-cities-buy-up-rural-water-rights-0001

27. west.stanford.edu/blogs/outwest/emily-bookstein

28. www.pacificresearch.org/fileadmin/images/Publications_General/WaterConferenceJune2016/3_Water_Transfers_in_the_West_2012.pdf

29. www.thefencepost.com/news/11000963-113/bill-colorado-slope-dry

Control Invasive Species That Are Using Large Amounts of Water

Who can implement this: *Federal, state, county, and city officials; governmental organizations; and advocacy organizations*

Because of the amount of water some invasive species use, removing them from along Utah's rivers and lakes could greatly improve the amount of water available for urban and rural uses.

Phragmites, for example, are one of the most common invasive species found along shorelines across Utah County. They form a harmful monoculture because of how quickly they spread and how much water they use. Phragmites are considered by Utah County to be a "noxious weed," resilient to unfavorable conditions and natural disasters, able to outcompete and eventually eliminate native vegetation and crucially important wetlands.³⁰ Phragmites also serve as untreatable breeding grounds for mosquitoes and, when dried out, become major fire hazards in both natural environments and manmade developments across Utah Lake. Perhaps most significantly, these plants consume large amounts of water. In fact, removing the phragmites along the Great Salt Lake would add the same amount of water to the lake that the construction of the Bear River Pipeline would remove.

Tamarisk (also known as saltcedar) is the other major invasive species commonly found on Utah's shorelines. Though less common than phragmites, the tamarisk plant has salt-secreting properties that add salt to waters and soils making them infertile for native plant species, thereby reducing the quality of Utah's shoreline habitats while also using disproportionately large amounts of water.

IMPLEMENTATION

The tamarisk could be culled with tamarisk beetles, though the beetles are difficult to control once they have been introduced. The tamarisk plant also will die in high-shade conditions while some native plants do not, a phenomenon that Utahns could somehow use to help eliminate the plant. In Utah, controlled herbicide has been one of the most widely used methods for controlling both phragmites and tamarisk.

- **Utah County lawmakers and organizations should expand efforts to remove invasive species** and should strive to better understand the impacts that removal will have on the environment.
- **Utah County lawmakers should explore expanding culling efforts by funding groups, bills, and departments that work to control invasive species** on Utah Lake and near other key water sources for Utah County.

EXAMPLES

The Utah County Weed Control Board is responsible for enforcing the county's weed laws, including invasive species.³¹ The board includes both lawmakers and farmers (who serve four-year terms) in order to have a balance of perspectives in their discussions. The board meets four times a year to discuss weed control laws and the challenges different weeds pose to the county's waterways and agriculture.

The Utah Lake Commission launched a major phragmites removal effort in 2014. Its goal was to remove over 95% of phragmites along different stretches of Utah Lake's shoreline over three years.³² The commission is currently in the middle of this effort and is expanding removal operations each growing season.



³⁰. utahlake.gov/wp-content/uploads/2012/11/Invasive_Plants_at_Utah_Lake_June_2012.complete.pdf

³¹. www.utahcounty.gov/dept/pubwrks/WeedControl.asp
³². www.utahlake.gov/phragmites-removal-2014/

SECTION TWO: Measures to Mitigate Development's Impact on Agriculture

Government action should focus on several specific issues to benefit agriculture in Utah County. For example, land use patterns (enforced by ordinances and zoning) that encourage building new housing and businesses more compactly result in less consumption of land and water. Such patterns also allow the market to provide a wider range of housing options. In addition, regulatory burdens can be removed to better support farming. Making changes to existing plans, regulations, ordinances, and codes can significantly improve how land is developed and how cities view agriculture.

Establish a Minimum Size of 40 Acres for Homes Built in Agricultural Zones to Discourage the Conversion of Farming Operations into Low-Density Residential Lots

Who can implement this: County and city officials, communities, governmental organizations, and agricultural producers

A particular concern raised by the spread of hobby farms (parcels of land that are zoned for agriculture but are primarily residential, referring specifically to those that are not agriculturally productive) is the proliferation of residential development in primarily agricultural areas. It takes only 20 five-acre residential lots to eliminate 100 acres of agricultural operations. This spread of very low-density residential development in agricultural areas can quickly consume large areas of productive farmland and increase urban-growth pressures. Moreover, many who purchase these five-acre lots may actually prefer to have a smaller lot with municipal services, but the current zoning practices that dictate the five-acre minimum lot size limit their options.

Establishing 40 acres as the minimum lot size for homebuilding on agricultural lands (unless specific requirements are met) will promote productive agricultural operations and make it more difficult to subdivide agricultural lands into nonproductive hobby farms that have no agricultural output or benefit. This would also preserve protections for agricultural producers across the county.

Farming operations are generally more effective and easier to protect and preserve when they take place on larger scales. Once land around smaller agricultural lots begins to be developed, it becomes easier for urban and suburban developments to expand, threatening to consume productive farmlands. Land currently belonging to hobby farms could be better used as part of larger, more productive farm. However, small farms are crucial to the agricultural industry, especially for beginning farmers looking to gain experience before moving to larger-scale farming efforts. The county needs to carefully evaluate the impacts of its agriculture zoning practices in order to better balance the needs of small-scale farmers with the needs of large-scale operations; for instance, agricultural land should be allowed to be subdivided into smaller farms but prevented from being turned into low-density residential subdivisions.



IMPLEMENTATION

- **City councils and the Utah County Commission should enact ordinances ensuring that houses built on agricultural land have a minimum lot size of 40 acres** to encourage and protect agricultural production. Houses built on smaller lots should meet specific requirements that discourage low density development and the creation of nonproductive hobby farms.
- **City councils and the Utah County Commission should explore ways to incentivize the consolidation of small-scale hobby farms into larger farms** or otherwise ensure that they are being used for agriculture production.
- **State and county organizations should encourage farmers to apply to have their lands designated as Agriculture Protection Area** to protect their farms and allow for small-scale farming operations to continue.
- Cities and communities should develop new and expand existing systems and programs that help beginning farmers on small farms move to larger farms when they become more experienced.
- Nonprofit organizations should educate non-agricultural landowners on the problems associated with buying five-acre lots of agricultural land, particularly when they do not use the land for any kind of farming or ranching.
- **City and county planners should modify zoning codes to help ensure that smaller farm lots are used primarily for farming.** This step is especially important for niche and beginning farmers who may not need or are unable to purchase 40 acres of farmland initially.

EXAMPLES

1000 Friends of Oregon conducted an initiative called “The New Face of Farming” that focused on identifying and finding solutions to common farming challenges across Oregon. Many of those issues are also applicable to Utah County.³³ The initiative explored problems including lot sizing, zoning, and farm stewardship.³⁴ The process brought together farmers, who began to make progress on solving some of the complicated problems facing farming in the United States.

33. www.friends.org/NewFaceofFarming

34. www.friends.org/sites/friends.org/files/reports/1000Friends-NFOF-Report-FINAL.pdf

Encourage Developers to Cluster Growth and Promote Denser Development, Leaving Larger Portions of Farmland Intact When Farms Are Developed

Who can implement this: *County and city officials, agricultural producers, and developers*

Urbanization and the preservation of agricultural land do not have to be mutually exclusive. In fact, smart development and growth can be synonymous with the preservation of open spaces and agricultural lands loved by Utah County residents. Cluster development is the concentration of small-scale development in a smaller portion of a designated tract of land. Cluster development preserves contiguous tracts of farmland or open space through easement, covenant, or deed restriction.

While the gross density on a parcel of land remains the same, overall lot sizes are reduced in order to set aside acreage for conservation. Instead of developing 40 one-acre lots on 40 acres of land, for example, a developer may instead conserve 20 acres for agricultural use and develop 40 half-acre lots on the remaining 20 acres of land. Permitting flexible lot sizes and adjusting minimum lot size requirements makes this type of clustering possible. Noncontiguous clustering is another strategy, in which the development from two or more parcels of land is clustered onto one lot, preserving the remaining parcels as farmland or open space.

Farm owners looking to sell some of their land can look into cluster development as a way to cash in on some of the value of their land while still preserving much of the functioning farmland. If clustered growth is developed correctly on a large parcel, farming operations can continue despite added development.

IMPLEMENTATION

- **Individual city councils and the Utah County Commission should incentivize (or even require) cluster development** when accepting subdivision plats. If necessary, cities should also provide density bonuses to encourage developers to adopt a cluster model.³⁵
- **City lawmakers and planners should explore the benefits of cluster development in their municipalities.** Preserving open space and encouraging compact development through annexation and zoning allows cities to preserve their natural resources while retaining the tax revenues and other social and economic benefits of urban growth.
- **Developers should create compact communities and preserve agricultural lands and open space wherever possible.** The benefits of clustering growth are self-evident for developers; houses near large amounts of open space are almost always worth more than houses that are not.³⁶

EXAMPLES

Farmington City, Utah, has a specific cluster development ordinance. The ordinance focuses on conserving land, preserving contiguous tracts of land, reducing erosion, and preserving vegetation of existing slopes and natural areas.³⁷

In an effort to reduce the loss of open spaces and agricultural lands, New Jersey passed a law in 2013 that gives municipalities authority to promote cluster development. The law allows municipalities to offer benefits to landowners and developers who promote noncontiguous clustering. This law, as well as others, helps reduce construction costs of infrastructure and encourage the more efficient use of taxpayer money.³⁸

35. www.cachecounty.org/assets/department/cpdo/Envision%20Cache/ECV%20Report%20Chapter%205%20Toolkit.pdf
36. www.americantrails.org/resources/economics/Economic-Benefits-Trails-Open-Space-Walkable-Community.html
37. www.farmington.utah.gov/downloads/community_development/title_11_chapter_12.pdf
38. www.njfuture.org/issues/environment-and-agriculture/land-preservation/tdr-clustering/noncontig-cluster-development/



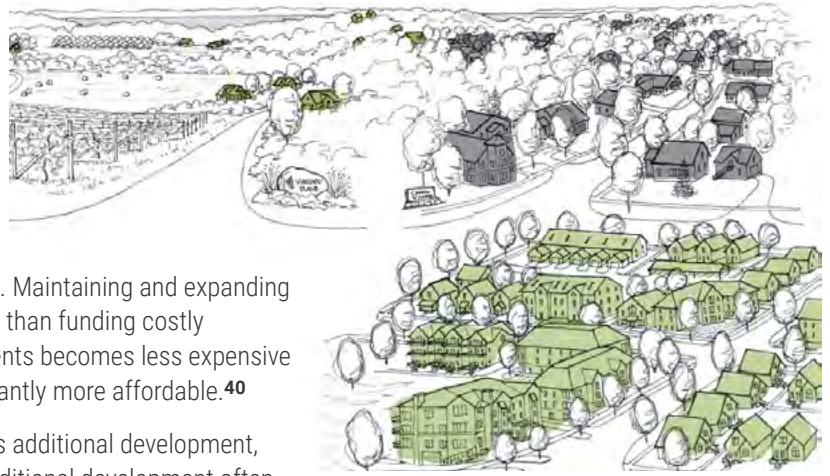
Develop Compact Infrastructure to Encourage Land Development Where Services Already Exist Rather than in Outlying Areas

Who can implement this: State, county, and city officials; advocacy organizations; and developers

Creating and maintaining new infrastructure (roads, water lines, pipes, power lines, etc.) can be costly to cities and developers when constructing new housing developments, especially when those developments are located away from existing road, sewage, and power systems.³⁹

The corridors that have to be built to connect existing infrastructure to new developments inevitably results in additional development occurring along the entirety of the corridor, often consuming open space and agricultural lands. Maintaining and expanding existing infrastructure in urban areas is often less expensive than funding costly expansions in outside areas. As a result, building developments becomes less expensive for developers and could make Utah's housing stock significantly more affordable.⁴⁰

Expanding infrastructure into undeveloped areas encourages additional development, especially given the pressures of population growth. This additional development often fragments contiguous areas of farmland and increases the cost and complexity of agricultural infrastructure by enclosing canals, making maintaining easements more difficult, among other negative impacts. If communities want agricultural lands to remain in agriculture, lawmakers and planners must carefully manage the expansion of urban infrastructure—including roads, water pipes, sewer lines, and power lines—into these areas, while still allowing sufficient expansion to meet market demand. One strategy for providing adequate agricultural water without encouraging residential or commercial development is to build infrastructure for secondary water. Secondary water meets agricultural irrigation needs but it is not potable, meaning developers would need to build more costly infrastructure to convert the land into a residential area.



IMPLEMENTATION

Developers and cities should create and adopt infrastructure plans with policies and standards that accommodate both rural and urban needs. These plans may include measures, for example, that limit the amount of new infrastructure or keep development away from canals used for agricultural irrigation.

Developers and cities should protect existing agricultural infrastructure assets and take agricultural impacts into account when planning infrastructure. Infrastructure for water and machinery access is crucial to farming operations and should be available without being unduly encumbered by residential and commercial development.

Individual city councils and the Utah County Commission should establish regulations and ordinances that encourage development to occur near existing infrastructure rather than in places that disrupt farming operations. When urban development is needed, areas in and near cities should be developed first. In order to minimize leapfrog development where farms and urban development mix, infrastructure plans should be clear and balance the need to expand services like water, sewer, and roads with

protecting landowners' rights. Infrastructure investment should also be properly staged to help landowners understand when services might be extended to their lands and that it may take time for urban amenities to be built in some areas if at all.

Lawmakers and planners should connect land use decisions to both local and regional long range plans to better coordinate all infrastructural improvements. Better coordinating the visions and goals of stakeholders and lawmakers at all levels will help ensure infrastructure is developed efficiently and reduce unnecessary costs and construction.

EXAMPLES

Placer County, California, used Equivalent Dwelling Units (EDUs) to model different plans for infrastructure construction showing multiple different scenarios in the city's future. Their models showed that the cost of sewer services was much lower with compact infrastructure in comparison to other development, helping them decide to develop more compactly.⁴¹ Utah County could adopt a similar model in which areas developed farther away from existing infrastructure would pay a higher price for sewer services than adjacent lands.

39. www.smartgrowthamerica.org/documents/building-better-budgets.pdf; uli.org/wp-content/uploads/ULI-Documents/Shifting-Suburbs.pdf

40. Brenda Bass, *Acre by Acre: Providing Standards for Agricultural Mitigation Using Agricultural Conservation Easements*, 46 McGeorge L. Rev. 213,

237 (2014) <http://digitalcommons.mcgeorge.edu/cgi/viewcontent.cgi?article=1135&context=mlr>

41. qcode.us/codes/placercounty/view.php?topic=13-13_12-13_12_010&frames=off

Encourage the Development of Vacant or Underused Parcels Within Existing Urban Areas

Who can implement this: *City officials, communities, governmental organizations, and developers*

Many parcels within urban areas in Utah County are vacant or underutilized. By developing these parcels before creating new developments at the fringe of urban areas, fewer agricultural lands will be threatened by encroaching commercial and business developments. Redeveloping urban centers and already inhabited areas is crucial to maintaining the quality of life Utahns have come to appreciate in their communities. Urban redevelopment preserves agricultural lands and reduces blight in urban areas, creating more appealing communities and street life. Redevelopment is also a major step toward making cities more walkable and accessible.



IMPLEMENTATION

Redevelopment agencies in Orem and Provo (as well as any other urban area in Utah County) can provide tax incentives and loan programs to promote the reuse of vacant land parcels. Local governments can provide other incentives for the redevelopment of underused parcels.

- **City councils should consider creating redevelopment agencies in places where they do not yet exist.** Redevelopment agencies should be encouraged and expanded to promote the redevelopment of parcels in urban areas across Utah County.
- **Redevelopment agencies should identify and flag underutilized parcels for redevelopment.** These parcels can be flagged manually through public outreach or through computer-generated geospatial technologies.
- **Government agencies and private developers should work together to develop a land parcel according to the needs of the community.** This will help reduce the amount of development needed at the edge of urbanized areas, where agricultural lands and other greenspace may be threatened by placing urbanization and development above the community's desires.

EXAMPLES

Some of Utah's largest cities have redevelopment agencies specifically focused on reducing blight and encouraging infill development within their municipalities. The Salt Lake City Redevelopment Agency and the Provo Redevelopment Agencies are two of the state's largest redevelopment organizations working to provide economic incentives to encourage infill development and administer programs, grants, and partnerships from city, state, and federal sources (like the Department of Housing and Urban Development).^{42,43}

Envision Utah's Urban Planning Tools for Quality Growth includes a chapter on land reuse and infill development. See Chapter 4: Reuse and Infill within that document.⁴⁴

42. www.slcrda.com/about.htm

43. www.provo.org/departments/redevelopment

44. www.envisionutah.org/tools/urban-planning-tools-for-quality-growth

Update City Plans and Zoning Practices to Encourage Agriculture, Changing Regulations to Foster Farming and Better Manage Water

Who can implement this: *State, county, and city officials; and communities*

Cities can help preserve local agriculture by updating their city plans and zoning practices to address and encourage agriculture and water management. Because agriculture is a major component of Utah County's economy and heritage, specifically addressing agriculture and water will likely result in added protections and a greater emphasis on agriculture in city plans. Cities can provide significant assistance to farming operations, especially if, in their city plans, they make an effort to include farmers' interests, preservation strategies, and other resources. Long range regional and city plans can promote the identification of prime farmlands that should be protected for future generations.

IMPLEMENTATION

City plans and zoning practices change at the discretion of the planning staff, planning commission, and city governments. In each city, these organizations should decide to support agriculture within their boundaries so that this strategy becomes a more multifaceted one that will need to be implemented by each city.

- **Utah County and its individual cities should consider addressing agriculture in their general plans.** If cities are encouraged to think about agriculture, preservation plans are less likely fall by the wayside.
- **City councils and planners should encourage agriculture through their general and land use plans.** City councils and planners should note the widespread desire to protect agriculture and begin to focus on better understanding water management.⁴⁵ When creating or revising plans, planners should be guided by a number of considerations:⁴⁶
 - a. Development trends, plans, or needs in each community that may impact agricultural development and preservation in the community (including population growth, economic growth, housing stock, business development, environmental preservation, and more)
 - b. Agricultural uses of land, including key agriculture specialties that are unique to farmers in each community
 - c. Key agricultural resources, infrastructure, and facilities
 - d. Anticipated changes to agricultural production, processing, supply, and distribution
 - e. Goals for agricultural development in the community
 - f. Means of increasing housing density in non-agricultural areas
 - g. Key land issues related to farmland preservation and specific plans to address those issues
- **City councils and planners should update their municipality's zoning practices,** encouraging more compact development and increasing support for agricultural land uses. These practices preserve water and land throughout the county and can reduce the amount of farmlands consumed by new residential development.

EXAMPLES

Santaquin, Utah, has become a regional leader in agricultural preservation through careful planning and consideration of agriculture's importance in the area. The city created a zoning designation specifically for agriculture in order to allow for specific protections that do not exist under commercial, residential, or industrial zoning classifications.^{47,48} Private landowners, for example, aren't required to connect to the city's water system if they are on a private system, an exemption that looks beyond traditional zoning and development practices and reduces the cost of infrastructure construction. Santaquin also works with local farmers to promote agritourism and other commercial agriculture enterprises through official city marketing and annual agricultural celebrations.

Many Midwestern states have robust plans for farmland and agricultural preservation; aspects of these plans can be adopted by Utah County and its cities. Wisconsin, for example, developed a statewide guide for counties to develop their own plans for farmland preservation, allowing counties to save farmland by expediting crucial preservation processes.⁴⁹ Iowa County, Wisconsin, developed a farmland preservation plan that implements the strategies found in the statewide guide, creating concrete, real world examples of some of the guide's concepts.⁵⁰

45. yourutahyourfuture.org/topics/agriculture

46. gomb.utah.gov/wp-content/uploads/sites/7/2013/12/Planning-for-Agriculture-tool-kit-5.pdf

47. www.santaquin.org/index.php/general-plan/

48. gomb.utah.gov/wp-content/uploads/sites/7/2013/12/Planning-for-Agriculture-tool-kit-5.pdf

49. datcp.wi.gov/uploads/Environment/pdf/FarmlandPreservationPlanGuidance.pdf

50. www.iowacounty.org/documents/departments/planninganddevelopment/Farmland%20Preservation%20Plan.pdf

Accommodate More Growth on Less Land

Who can implement this: *County and city officials, and developers*

One of the best ways to preserve agriculture is to develop compactly, which reduces the consumption of undeveloped lands (often agricultural or open spaces) and irrigation water for residential, commercial, and office construction. Market trends indicate that there is a growing demand for compact development across the Wasatch Front; more dense development is currently in demand because it is more affordable and increases travel convenience.⁵¹ It also reduces the cost of infrastructure and services in residential areas while preserving space for farm and ranchlands. Low-density residential land does not pay for itself, requiring \$1.11 in services for every dollar paid in taxes.

Studies and surveys show that house lot sizes in Utah County have decreased from their peak sizes in the 1960s.⁵² Cities can continue this trend by zoning smaller lots for new residential developments. As a result, farms will be able to continue operating on large areas of land while still allowing the county to accommodate population and community growth.

To foster more compact growth patterns, development within current and existing urban areas needs to be encouraged. By doing so, the county is able to channel most development away from key agricultural open lands.

IMPLEMENTATION

- **Cities should avoid annexing land without carefully considering the potential loss of agricultural production.**
- **City planners should evaluate zoning practices and establish incentives that support denser forms of development** and redevelopment in urban areas.
- **City councils and the Utah County Commission should develop ordinances that incentivize more compact development.** Incentivizing compact development will better motivate developers to create more dense communities and will make communities more affordable for residents.
- **Developers should follow market trends by developing compact, walkable communities** in urban areas, preserving open space and farmland. More dense development results in less land being consumed by development.

EXAMPLES

Envision Utah's Quality Growth Strategy helped reduce the amount of land being developed by educating community members, developers, and lawmakers about the benefits of compact development. In the 1990s, development trends along the Wasatch Front were on track to consume 695 square miles of land by 2020.⁵³ Instead, compact growth was encouraged and now development will likely consume around 494 square miles by 2020, saving 200 square miles of undeveloped land, including agricultural lands and open spaces.

Daybreak, Utah, is the state's largest master-planned community.⁵⁴ The development site for the city is on about 4,000 acres, and the community focuses on building compact, walkable development next to parks and open spaces. Daybreak was a result of carefully considered planning and coordination between developers and lawmakers and is an example of a community that consumes less land and that offers the benefits of being more walkable and livable than traditional development. The community's popularity has established South Jordan as one of the fastest growing cities in the nation.⁵⁵



51. www.slcdocs.com/Planning/Projects/NorthwestQ/W.pdf

52. Utah County Assessor's Office.

53. governor.utah.gov/DEA/Publications/070OtherPublications/2003BaselineWEB.pdf

54. casestudies.uli.org/wp-content/uploads/sites/98/2015/12/C037024.pdf

55. archive.sltrib.com/story.php?ref=/sltrib/news/56350259-78/jordan-south-cities-lake.html.csp

Ensure That Urban Growth Occurs Where Appropriate and Establish Buffers Between Homes and Agricultural Lands

Who can implement this: *State, county, and city officials*

Utah County's crucial agricultural lands are being threatened by constantly-expanding urban growth. To help preserve agricultural land and greenspace, local lawmakers should encourage growth in places that are better suited for development.

Utah County already limits the expansion of urban areas by prohibiting large-scale development in unincorporated areas. The lakes and mountains of the Wasatch Front also serve as natural boundaries to growth in the Salt Lake City and Provo–Orem metropolitan regions. However, population growth and the subsequent need for development is placing pressure on many of Utah County's natural resources and agricultural lands. Additional protections of these lands may be necessary to mitigate the impacts associated with population growth.

Agricultural buffers provide extra space for typical farming practices to continue even when development occurs near farm operations. Open space buffers are intended to shield farms from nuisance complaints of residents and protect the public's health and safety from noise, dust, odor, pesticide use, and the normal activities that are part of farming and ranching.

When adopted through the land use review process, buffers are a legally required separation between residences, schools, and other land uses that may potentially be incompatible with nearby agricultural practices.⁵⁶ Agricultural buffers can help farms and residences coexist. Having legally mandated buffers to insulate farms reduces complaints and allows farms to operate more freely without having to worry about the impacts of day-to-day business on neighbors.

IMPLEMENTATION

- **Individual cities must decide** where they want most of their urban development to occur and on what **densities of development best meet the needs of their communities.** Agricultural buffers would likely be implemented in a general land use plan or through zoning laws in different jurisdictions across Utah County.
- **City councils and planners should review and revise annexation laws** and other regulations that influence where future urban development may occur to ensure that they adhere to community needs and desired outcomes for future growth.
- **The Utah County Commission should encourage cities to create buffers between their residential/commercial areas and agriculture areas** to help dissuade future development and prevent nuisance complaints.

EXAMPLES

The Cache Valley South Corridor Development Plan aims to guide the development of private and public land across the corridor that connects the Cache Valley cities of Wellsville, Nibley, and Logan.⁵⁷ The development plan incorporates open space buffers to preserve agricultural land and to maintain the rural feel of the region. The plan's buffers are in line with the desires of the community and will help direct the inevitable development coming to the region in a way that preserves Cache Valley's strong agricultural heritage.



56. www.slocounty.ca.gov/agcomm/Land_Use/Agricultural_Buffers.htm

57. www.loganutah.org/departments/comdev/So%20Corridor%20Complete%20Plan.pdf

Establish a Tax-Base Sharing Program to Encourage Preservation of Agricultural Lands

Who can implement this: *State, county, and city lawmakers*

Sales tax is one of the largest sources of revenue for cities. A significant portion of money from sales tax goes directly to the city in which the taxed products are sold. As a result, cities often compete with each other to attract retailers (department stores, furniture stores, auto dealerships, etc.). Cities sometimes over-zone commercial areas in hopes of a corresponding demand for retail development, as expressed in the saying, "If you zone it, they will come."

Agriculture, on the other hand, is considered to be one of the lowest tax generators for a city. Because cities are often led to believe that commercial development is more profitable than keeping land in agriculture, they can be tempted to develop as many businesses as they can, often at the expense of farmland. But cities should also understand that farms require very few services and therefore have reduced infrastructure costs, whereas commercial and residential developments cost more money to maintain. Agriculture also contributes more in revenue than it requires in expenditures.

Studies on the cost of community services done by the University of New Hampshire concluded that residential developments contribute less in revenue than they require in government expenditures. Farmland requires \$0.37 in public services for each dollar paid in taxes, while residential land requires \$1.11 in services for every dollar paid in taxes.⁵⁸ Cities need to understand the value of agricultural lands in relation to their low public services costs; though agricultural lands do not generate major tax revenue, they are less expensive to maintain and provide other services that are often overlooked by purely economic analyses.

One way to ensure that agricultural lands are better protected from tax revenue-based development would be to switch from a local tax revenue structure to a tax-base sharing program. This change to the revenue structure would allow cities to share regional commercial taxes based on population rather than on the amount of commercial development in a city. As a result, cities would be better able to protect their supply of local food and alleviate the pressure to build retail or residential development on agricultural lands.

A tax-base sharing program will help cities cooperate with one another and act in a way that benefits the entire region, instead of fixating on just the interests of their own communities. Cities would be less likely to over-allocate commercial development and unnecessarily destroy farmland because they would be confident that they would receive some portion of the region's taxes, regardless of what businesses they have. Changing the tax revenue structure will also allow the market to work more effectively, ensuring that the amount of retail in the region matches the actual demand more closely.

IMPLEMENTATION

- **State and city lawmakers on a statewide scale should work together to change tax policies** so that a sharing-based system would be legally viable in their jurisdictions.
- **Cities should cooperate together and be willing to share their commercial tax revenues.** Cities that have a large amount of retail would have to be willing to share tax revenues with cities that have less retail, and other cities would likely need to help pay the regional infrastructure costs associated with retail in another city.
 - Tax-base sharing could be explored as an option in Utah County, though it would be a significant change from the status quo and may require unique adjustments to the county and overall state.
 - What constitutes a "region" would first need to be carefully defined, and then regions would need to work closely together to allocate resources and tax revenues.

EXAMPLES

The Twin Cities region (Minneapolis–Saint Paul) has an innovative tax-base sharing program, known as the Fiscal Disparities Program. The large size of the seven-county region and the amount of commercial-industrial taxes shared by its communities make the program unique.⁵⁹

With the support of the Metropolitan Council, the Minnesota legislature created the metro-area program in 1971. The council decided that tax-base sharing supported their goals of:

- Promoting orderly and efficient growth.
- Improving equity.
- Strengthening economic competitiveness.
- Encouraging land uses that protect the environment and increase livability.

Tax-base sharing spreads the fiscal benefits of commercial-industrial growth throughout a region, regardless of where

⁵⁸. extension.unh.edu/resources/files/Resource002693_Rep3977.pdf

⁵⁹. www.metrocouncil.org/Communities/Planning/Local-Planning-Assistance/Fiscal-Disparities.aspx

properties exist in the metro area. It also reduces differences in property tax wealth between communities with a lot of commercial-industrial businesses and those with little. These wealth differences reflect how commercial-industrial development tends to concentrate near regional infrastructure and services, such as highways, wastewater treatment, and transit.

Started in 1975, the Minnesota legislature created a tax-base sharing program to:

- Share resources produced by the growth of the metro area.
- Make orderly development more likely by reducing competition for tax base.
- Work within the existing system of local governments and local decision making.
- Give incentives for all to work for growth of the seven-county metro area as a whole.
- Help communities in different stages of development and redevelopment.
- Encourage environmental protection.

How tax-base sharing works

Since 1971, local taxing jurisdictions have contributed 40% of growth in commercial, industrial, and public utility property taxes to an area-wide shared pool of tax base. Local property tax administrators distribute the funds in the shared pool to communities based on their population and the market value of all property per person compared to the average market value per person for the metro area. Communities with below-average property tax value per person receive a somewhat larger share of the area-wide tax base.





FEDERAL CONCERNS

There are many ways to preserve and improve agriculture in Utah County, but current laws, attitudes, and conditions across the state and country make it difficult to address certain challenges. This section reviews federal strategies that, though outside the scope of the rest of the toolbox, could benefit Utah County's agricultural industry in the future.

Work with Congress and Federal Agencies to Address Regulatory Concerns to Increase the Viability of Farms and Ranches

Who can implement this: *Federal, state, county, and city officials; governmental organizations; and agricultural producers*

This toolbox provides a wide range of opportunities for community leaders to make and keep agriculture economically and socially viable and to encourage development patterns and implement measures that protect agricultural land and water resources. However, elected officials on all scales in Utah County should work with federal elected officials and federal agencies to develop additional programs and resources that may be outside of the scope of this document.

The most effective regulatory programs are generally run on the state or local levels in cooperation with the farm industry and provide flexibility wherever possible.

Currently many regulatory programs increase the cost and difficulty of compliance for existing farmers and ranchers, which is either passed on to Utah consumers through higher grocery bills or taken out of agricultural producers' already thin margins. By decreasing the complexity of existing regulatory systems, elected officials can begin to tackle significant barriers to entry into the agriculture industry that would have otherwise dissuaded new farmers and ranchers who lack the experience, capital, or economies of scale necessary to comply with the existing regulatory framework.

IMPLEMENTATION

- **Utah's congressional delegation should work with state and local elected officials and the agriculture community** to improve regulatory programs to improve agriculture in Utah County.
- **New federal regulations should consider the input of farmers and ranchers affected by the regulations.** Where feasible, the regulatory programs should be administered by the state and include flexibility that allows the state to adapt to local environmental, social, and economic conditions.
- **Compliance assistance funding and resources** should be made available to the delegated state agencies and to farmers and ranchers.

EXAMPLES

Agricultural Employment Visas - Farmers and ranchers have long experienced difficulty in obtaining workers who are willing and able to work on farms and ranches. Jobs in agriculture are physically demanding, conducted in all seasons, and often temporary. For many prospective workers from other countries, these jobs present significant economic opportunities. Farmers often rely on these foreign workers, who are admitted under a government-sponsored temporary worker program known as H-2A, and on workers who have legal working status in the United States. In its current form, the H-2A program places unnecessary burdens on farmers and ranchers, making the program unsustainably costly.

Reforming the immigration system can help ensure that American agriculture has a legal, stable supply of workers, both in the short and long term and for all types of agriculture. This strategy requires a legislative solution that addresses the current unauthorized agricultural workforce in the United States and ensures that future needs are met through a program that will admit a sufficient number of willing and able workers in a timely manner. Past legislative proposals (e.g. AgJOBS, HARVEST Act, BARN Act, and other bills) have proposed reforms to the H-2A program to ensure a future workforce in agriculture, but these proposals have been unsuccessful thus far.

- **Utah County and state officials should work with the federal delegation to support legislative and administrative actions to restructure the H-2A program.** This restructure would ideally place it primarily under the authority and administration of the U.S. Department of Homeland Security, as the H-2A program is an immigration and homeland security issue, not a labor issue.
- **County and state officials should work with the federal delegation and federal agencies to provide Utah with the authority and tools needed to move forward with its initiatives,** including the state's efforts to implement the Utah Immigration Accountability Enforcement Act and the Pilot Sponsored Resident Immigrant Program Act.

The Endangered Species Act (ESA) – Recent years have seen a dramatic increase in the number of petitions to list species, including the Wolverine, Western Bumble Bee, and Greater Sage Grouse. These petitions often require local and state agencies and elected officials to create conservation plans to better protect threatened or endangered species. These plans often require federal involvement and oversight in protection and recovery efforts. All efforts for conservation plans should include conducting local and regional assessments and should take into account existing management plans.

The ESA has affected Utah most recently with legislative concerns over Greater Sage Grouse. The U.S. Department of Agriculture created plans amending existing Bureau of Land Management and Forest Service land-use plans to better protect sage grouse in ten western states. A countermeasure was then proposed by a Utah representative: the Greater Sage Grouse Protection and Recovery Act of 2016 attempted to allow state organizations and governors to overrule federal action to preserve sage grouse if the actions were deemed inconsistent with the state's management plan, but legislative action was never taken on the bill.¹

Pesticide Worker Protection Standards (WPS) - The new WPS rule increases costs for farmers and ranchers. Changes to WPS could have significant impacts on the agricultural community. The most recent changes to WPS rules include annual training for farm workers, posting no-entry signs for fields treated with pesticides, and a potential increase in liability to the landowner for drift of pesticides by the applicator.

- The Environmental Protection Agency should work with state organizations to ensure that WPS protections are upheld while minimizing costs for farmers and ranchers.

Food Safety Modernization Act (FSMA) – FSMA aims to ensure the safety of the country's food supply by shifting the focus from responding to contamination to preventing it. UDAF's Division of Regulatory Services has a cooperative agreement with the FDA to inspect assigned food manufacturing facilities and the produce sector on an annual basis. However, many farms affected by FSMA are already participating in good agricultural practices (GAP) certification, a requirement imposed by many grocery stores as a requirement for farmers' crops to be sold in stores. Grocery stores and other retailers generally require producers to meet the FSMA standards as well, regardless of the size of the operation.

- **Federal and state officials should work to better coordinate FSMA implementation with GAP certification to allow the producers to follow one set of rules** instead of having to navigate various rules and standards.
- **Federal agencies and state departments should ensure that there is sufficient and consistent funding for states to implement FSMA**, as well as additional funding and compliance assistance for farmers working to understand and implement new food safety standards.

Grazing – Farmers and ranchers regularly use public lands for livestock grazing, benefiting both their operations and the land itself. Flexibility for farmers and ranchers who utilize public lands for their operations is essential. Using public lands for grazing supports many family-based operations and is vital to the culture, customs, and economies of Utah County and the entire State of Utah. Ranching operations and public land grazing provide food for a growing population. These operations can also maintain open spaces and promote habitat conditions that benefit wildlife and recreation. Restrictions on public lands grazing can have negative impacts on ranchers and ranch-dependent communities. Land management decisions are most effective when made through a collaborative and cooperative process. A majority of the land in the west is managed by the federal government, making public lands vital to Utah agriculture. Continued grazing on public lands is essential to the future of ranching and farming in Utah County.

- **Land management agencies should reward farmers who utilize adaptive management practices and who monitor the health and productivity of their grazing operations on public lands.** Recognizing their efforts will act as an incentive for other permittees, encouraging them to implement innovative, adaptive management practices.

In Rich County, Utah, the Three Creeks project stands as a prime example of the cooperative management of grazing lands. At the request of county commissioners, private ranchers and the Utah Department of Agriculture and Food, the Bureau of Land Management and the U.S. Forest Service will soon consolidate 10 grazing allotments into one 135,000-acre management unit. This will allow adaptive management practices to take place, benefiting the environment and the rural economy.²

1. www.congress.gov/bill/114th-congress/house-bill/4739/text

2. Salt Lake Tribune, "We are not all Cliven Bundys: Rich County ranchers partner with BLM to revolutionize grazing". <http://www.sltrib.com/news/4088140-155/we-are-not-all-clivenbundys-rich>

Agriculture Program Funding Resources

The following are some of the programs, grants, and other resources available to Utah County agricultural producers. This section lists organizations, agencies, and offices working to benefit farmers and ranchers and showcases example programs or grants. This resource is meant to be a jumping-off point for aspiring and existing farmers and ranchers looking to benefit their farm operations; it is not, however, a comprehensive list:

PROGRAM	OBJECTIVE	APPLICANT
Utah Department Of Agriculture And Food		
Agriculture Resource Development Loan (ARDL)	The ARDL program provides low interest loans to farmers and ranchers whose application is initiated with the local Conservation District office for projects which meet the conservation and pollution control goals of the program. It is administered by the Utah Department of Agriculture and Food under the direction of the Utah Conservation Commission.	The United States Department of Agriculture defines a “farm” as an operation of five or more acres with annual sales of at least \$1,000. Any private farm or ranch operator who meets this definition is eligible to apply for an ARDL loan. The planned projects must be applied to farmland or ranchland.
Rural Rehabilitation Loans (RR)	RR Loans help those who want to buy, begin or improve an agricultural operation but who cannot qualify for conventional financing. Loans are approved by the Agricultural Advisory Board under the Commissioner of Agriculture.	Beginning farmers and ranchers. Applicants will be encouraged to apply through FSA’s Beginning Farmer Program first. And as a lender of last resort to farmers and ranchers unable to acquire financing from conventional lending institutions.
Basin States Salinity Control Program	The Basin States Salinity Control Program provides funding for projects that reduce salinity in the Colorado River system. Most projects improve irrigation efficiency which reduces salt loading to the river and its tributaries. Funds come from Basin States Funds from power generation as a cost share to match EQIP salinity expenditures.	Irrigation canal companies, farmers, and any entity that can demonstrate salt reduction to the river system.
Utah Grazing Improvement Grant Program (GIP)	The GIP works with livestock producers and livestock permittees on public lands. GIP provides cost share grants to help install rangeland improvements that improve rangeland health, improve ranchers economic output and support grazing in local communities.	Any livestock producer that uses grazing as a method to produce food and fiber.
Invasive Species Mitigation Grant (ISM)	ISM Grants are awarded to entities who take action to control one or more major noxious weeds in Utah. These noxious weeds are invasive species that force native species to decline in population or to disappear from their natural environment. Invasive species can have negative impacts on crops and livestock feed, wildlife habitat, and recreation access.	Eligible organizations: Cooperative Weed Management Areas (CWMA’s), county weed boards, federal, state, tribal, private landowner, conservation districts, and/or other political subdivisions.

USES	LOAN / GRANT	TERMS / CONDITIONS	CONTACTS
Eligible projects include: Irrigation systems, fencing, rangeland reseeding, erosion control, weed control, windbreaks, flood prevention, disaster cleanup, water conveyance, rangeland improvement, manure management structures, on-farm energy projects, supporting energy projects for conservation, crop storage facilities, and other farm animal protection structures.	<p>LOAN May be used in conjunction with:</p> <p>NRCS, AMA, NRCS EQIP</p>	Funds are loaned at 2.50% to 3.00% interest for a minimum of 7 years or maximum of 15 years based on collateral and loan amounts. There is a 4% administration fee.	<p>Karen Rhynsburger 801-538-4943 krhynsburger@utah.gov</p> <p>Roberta Valdez 801-538-7179 robertavaldez@utah.gov</p>
Used for farm acquisition financing for beginning farmers and others as approved by the Agricultural Advisory Board. The preference is to work jointly with Farm Service Agency (FSA) on land acquisition loans. Farm operating loans.	<p>LOAN May be used in conjunction with:</p> <p>FSA</p>	Maximum loan amount of \$350,000, currently at a 4% fixed rate. 10 year term amortized over 20 years. Secured by real estate and applicable water rights. The maximum loan to value ratio is 60%.	<p>Karen Rhynsburger 801-538-4943 krhynsburger@utah.gov</p> <p>Roberta Valdez 801-538-7179 robertavaldez@utah.gov</p>
Eligible projects are those that reduce salinity in the Colorado River system.	<p>GRANT</p>	Selected through competitive processes, reclamation funding announcements, or by the Natural Resources Conservation Service through EQIP.	<p>Mark Quilter 801-538-9905 mquilter@utah.gov</p>
Can be used for water lines, fencing, spring developments, chaining, seeding, wells, brush management, pumps, management plans, troughs, ponds, or any other project that will enhance grazing management	<p>GRANT</p>	Grants are up to 50% on private land and up to 75% on federal or state ground. If other partners are involved the landowner or permittee must bear at least 12.5% of the cost, this can be in kind.	<p>Troy Forrest 435-279-3603 tforrest@utah.gov</p>
Provides funding for approved control methods, including biological control, chemical control, cultural control, and mechanical control. Projects include: careful use of herbicides administered by a licensed applicator, grazing, insect feeding and the use of pathogens to manage weed infestations, hand pulling or cutting, tilling, mowing, and burning, applying fertilizer to encourage wanted vegetation, and revegetation of an infested area.	<p>GRANT</p>	Project funds are approved by the ISM Ranking Committee each year through a competitive process. Landowner participation is required to receive funds. Funds are matched by in-kind labor and supplies from the applicant.	<p>Rich Riding 801-538-7186 rriding@utah.gov</p>

PROGRAM	OBJECTIVE	APPLICANT
<p>Salinity Coalmine Offset Program</p>	<p>The Salinity Coalmine Offset Program provides funding for projects that offset salinity discharges from mining or energy extraction activities in the Colorado River system. Most projects improve irrigation efficiency which reduces salt loading to the river and its tributaries offsetting discharges from industry.</p>	<p>Irrigation canal companies, farmers, and any entity that can demonstrate salt reduction to the river system.</p>
<p>National Resources Conservation Service (NCRS)</p>		
<p>Agricultural Management Assistance (AMA)</p>	<p>AMA helps agricultural producers use conservation to manage risk and address natural resource issues by providing technical and/or financial assistance.</p>	<p>Agricultural producers or livestock growers with annual potential sales of \$1,000 or more that are in control of land to be improved. Land must be used for agricultural/livestock production and private non-industrial forestland.</p>
<p>Conservation Innovation Grants (CIG)</p>	<p>CIGs provide financial funding to stimulate the development of innovative approaches and technologies for conservation on agricultural lands.</p>	<p>Individuals, non-government organizations, state governments, local governments, and American Indian tribes that have conservation approaches or technologies that improve conservation. Projects may be farm-based, multi-county, watershed, or state-wide depending on need and availability of funds.</p>
<p>Conservation Stewardship Program (CSP)</p>	<p>Through CSP, participants take additional steps to improve resource conditions including soil quality, water quality, water quantity, air quality, and habitat quality, as well as energy.</p>	<p>Eligible lands include private and tribal agricultural lands, cropland, grassland, pastureland, rangeland and nonindustrial private forest land. CSP is available to all producers, regardless of operation size or type of crops produced in all 50 states. Applicants may include individuals, legal entities, joint operations or Indian tribes that meet the stewardship threshold for at least two priority resource concerns when they apply.</p>

USES	LOAN / GRANT	TERMS / CONDITIONS	CONTACTS
Eligible projects reduce salinity in the Colorado River system. Preference goes to projects in close proximity to discharge providing the offset funds. All projects must be located within the Colorado River Basin.	GRANT	Projects are selected through competitive RFP process. Priority is given to projects within the drainage of the discharge that provides the offset funds, and within the Colorado River Basin.	Mark Quilter 801 538-9905 mquilter@utah.gov
Provides conservation technical and financial assistance to producers to construct or improve water management or irrigation structures, plant trees for windbreaks, improve water quality and mitigate risk, diversify their operation and conservation practices including soil erosion control, integrated pest management or transition to organic farming.	GRANT	Maximum grant of \$50,000 per fiscal year. Applicants must have an adjusted gross income of \$900,000.	Producers can meet with field planners for deals or to begin application process. Find the closest Utah Field office at: http://offices.sc.egov.usda.gov/locator/app
Provides funding for innovative on-the-ground conservation projects, pilot projects and field demonstrations, or the improvement of conservation technologies.	GRANT	At least 50% of total project cost must come from non-federal matching funds (both in-kind and cash contributions). Applicant must provide own technical assistance. Producers must be EQIP eligible.	More information and applications can be found at http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/cig/ . Producers can meet with field planners for deals or to begin application process. Find the closest Utah Field office at: http://offices.sc.egov.usda.gov/locator/app
Funds can be used to maintain and improve existing conservation systems and adopt additional conservation activities to address priority resources concerns	GRANT	CSP provides two types of payments through five-year contracts: annual payments for installing new conservation activities and maintaining existing practices and supplemental payments for adopting a resource-conserving crop rotation. Producers must have effective control of the land for the term of the proposed contract. Participants earn CSP payments for conservation performance - the higher the performance, the higher the payment.	Producers can meet with field planners for deals or to begin application process. Find the closest Utah Field office at: http://offices.sc.egov.usda.gov/locator/app

PROGRAM	OBJECTIVE	APPLICANT
Emergency Watershed Protection (EWP)	The purpose of the EWP program was established by Congress to respond to emergencies created by natural disasters. The program is designed to help people and conserve natural resources by relieving imminent hazards to life and property caused by floods, fires, drought, windstorms, and other natural occurrences.	Public and private landowners are eligible for assistance, but must be presented by a project sponsor whose status must be a legal subdivision of the State, such as a city, county township or conservation district, and Native American tribes or tribal governments.
Environmental Quality Incentives Program (EQIP)	EQIP is a voluntary program that provides financial and technical assistance to agricultural producers through contracts up to a maximum term of ten years in length.	Owners of land in agricultural or forest production or persons who are engaged in livestock, agricultural or forest production on eligible land and that have a natural resource concern on the land may participate in EQIP.
Farm Service Agency		
Guaranteed or Direct Farm Ownership (FO) Loans	FSA provides direct and guaranteed loans to eligible farmers and ranchers who are unable to obtain financing from commercial credit sources. Each fiscal year, the agency targets a portion of its direct and guaranteed FO funds to beginning farmers and ranchers and traditionally underserved farmers and ranchers.	FO loans are for farmers, an individual, or an entity who: <ol style="list-style-type: none"> 1. Meets the loan eligibility requirements for a direct or guaranteed FO loan, as applicable; 2. Has not had a FO loan for more than 10 years This requirement applies to all member of an entity; 3. Will materially and substantially participate in the operation of the farm.
Guaranteed or Direct Farm Operating Loans (OL)	OL are made to an eligible applicant to assist with the financial costs of the operating a farm. The term also includes a direct Youth Loan made to individual rural youths to establish and operate income-producing projects of modest size in connection with their participation in 4-H clubs, Future Farmers of America, or similar organizations.	OL loans are for farmers, an individual, or entity who: <ol style="list-style-type: none"> 1. Meets the loan legibility requirements for a direct or guaranteed OL loan, as applicable; and 2. Will materially and substantially participate in the operation of the farm.
Farm Storage Facility Loan Program (FSFL)	The Farm Storage Facility Loans provide low-interest financing for producers to build or upgrade permanent facilities to store commodities.	Applicant must <ol style="list-style-type: none"> 1. Be a grower of an eligible commodity 2. Demonstrate a need for the facility 3. Have a satisfactory credit rating 4. Show ability to repay the loan. 5. Provide proof of multi-peril crop insurance.

USES	LOAN / GRANT	TERMS / CONDITIONS	CONTACTS
<p>EWP grants are designed to promote the installation of recovery measures to safeguard lives and property as a result of a natural disaster. The EWP program addresses watershed issues such as debris-clogged stream channels, undermined and unstable streambanks, jeopardized water control structures and public infrastructures, wind-borne debris removal, and damaged upland sites stripped of protective vegetation by fire or drought</p>	<p>GRANT</p>	<p>NRCS may pay up to 75% of the construction cost of emergency measures. The remaining 25% must come from local sources and can be in the form of cash or in-kind services.</p>	<p>Producers can meet with field planners for deals or to begin application process. Find the closest Utah Field office at: http://offices.sc.egov.usda.gov/locator/app</p>
<p>Incentives are used to provide financial and technical assistance to agricultural producers through contracts up to a maximum term of ten years in length. These contracts provide financial assistance to help plan and implement conservation practices that address natural resource concerns and for opportunities to improve soil, water, plant, animal, air and related resources on agricultural land and non-industrial private forestland.</p>	<p>GRANT</p>	<p>Program participants may not receive, directly or indirectly, payments that, in the aggregate, exceed \$450,000 for all EQIP contracts entered into during the period 2014 to 2018. This maximum payment limitation may not be waived. Additional payment limitations apply to producers enrolled in the EQIP Organic Initiative.</p>	<p>Producers can meet with field planners for deals or to begin application process. Find the closest Utah Field office at: http://offices.sc.egov.usda.gov/locator/app</p>
<p>Loans may be used to purchase farmland, construct or repair buildings and other fixtures, and promote soil and water conservation.</p>	<p>GUARANTEED OR DIRECT LOAN May be used in conjunction with: ARDL</p>	<p>Direct loans can be up to 40 years with no down payment. Interest rates change monthly, but are locked in during approval or during closing (whichever is less). Guaranteed loans must comply with the bank's terms.</p>	<p>Go to the following website to find the location of your nearest FSA office http://offices.sc.egov.usda.gov/locator/app Guaranteed loans originate through the bank you are working with.</p>
<p>Loans may be used to purchase items such as livestock, farm equipment, feed, seed, fuel, farm chemicals, insurance, and other operating expenses. OL loans may also be used to pay for minor improvements to buildings, costs associated with land and water development, family assistance, and to refinance debts under certain conditions.</p>	<p>GUARANTEED OR DIRECT LOAN</p>	<p>Direct loans for operating purposes are paid back annually. Direct loans for chattel purchases can go up to 7 years. Guaranteed loans must comply with the bank's terms.</p>	<p>Go to the following website to find the location of your nearest FSA office http://offices.sc.egov.usda.gov/locator/app Guaranteed loans originate through the bank you are working with.</p>
<p>Loans may be used to help build upgrade facilities used to store commodities such as grains, oilseeds, peanuts, pulse crops, hay, honey, and renewable biomass commodities. Special provisions are in place for fruit and vegetable growers.</p>	<p>DIRECT LOAN</p>	<p>15 % cash down payment. Terms are 7, 10 or 12 years depending on the amount of the loan. The interest rate is fixed and is based on the interest charged on Treasury Securities. Storage facilities must be approved by the local County Committee. The facility, in most cases, must have an estimated life expectancy of at least 15 years.</p>	<p>Go to the following website to find the location of your nearest FSA office http://offices.sc.egov.usda.gov/locator/app</p>

PROGRAM	OBJECTIVE	APPLICANT
Emergency Loan Program (EM)	Emergency loans are made to eligible applicants who have incurred substantial financial losses from a disaster.	Requirements are similar to the Direct Operating and Real Estate Loans. Also, the applicant must be in a federal designated disaster area and have suffered a loss based on the disaster during the time frame.

Department of Water Quality

Clean Water State Revolving Fund Loan Program (SRF)	The SRF provides low interest rate loans for the funding of water quality and wastewater infrastructure projects in Utah.	Projects financed through the SRF may receive funding from the following sources: SRF Capitalization Grants; SRF loan repayments; and State matching funds.
Section 319	The Water Quality Board recognizes that NPS pollution is a growing problem. These funds are used for on-the-ground implementation, nonpoint source pollution studies, and information and education efforts to promote the protection and improvement of water quality.	Section 319 funding is awarded each year to the State of Utah through a grant from the EPA in accordance with Section 319 of the Clean Water Act.

Utah Department of Natural Resources

Canal Inventory	To inventory all canals of five CFS or Greater, in the state.	The State Engineers office can contract with CDs to provide the alignment and inventory, and to provide technical support to provide canal management plans.
-----------------	---	--

USES	LOAN / GRANT	TERMS / CONDITIONS	CONTACTS
<p>Funds may be used to repair or replace damaged or lost land, fixtures, chattels, cattle, etc. Also, some of the money can be used to operate because of loss of income from the disaster.</p>	<p>DIRECT LOAN</p>	<p>Can be up to \$500,000 based on the amount of the loss covered by the disaster. Cannot be more than the actual loss minus any insurance benefits</p>	<p>Go to the following website to find the location of your nearest FSA office http://offices.sc.egov.usda.gov/locator/app?state=ut&agency=fsa</p>
<p>Funds are used for low-cost financing of treatment works, sewerage systems, stormwater projects, decentralized systems, and nonpoint source projects.</p>	<p>LOAN / GRANT</p>	<p>Eligible projects to be funded by the SRF include loans closed with remaining draws, authorized loans, and anticipated loans. Loans closed with remaining draws refer to projects that are currently under construction. Authorized loans refer to projects that have been authorized by the Utah Water Quality Board and are in the design phase. Anticipated loans refer to projects that are in the beginning stages of planning.</p>	<p>John Mackey 801-536-4347 jkmackey@utah.gov</p>
<p>Ranking criteria for Section 319 funding reflect the priorities of the Nonpoint Source Program, including protecting public health, restoring impaired waters, and preventing surface and ground water pollution. Projects that are in a watershed with an approved TMDL, are on the impaired waterbody list, are within a target basin, or have a nine element watershed plan are given priority ranking. For more information, refer to the ranking sheet at: http://www.waterquality.utah.gov/NPS/Docs/2013/11Nov/NPSProjectRanking.pdf.</p>	<p>GRANT</p>	<p>The primary requirement of 319 funding is that every project must adhere to a 60/40 cost share rate. This means that 60% of the total project cost can be paid using section 319 funding, and the remaining 40% will need to be paid by other non-federal funds, or as "in-kind" match. The 40% non-federal match can come from either individual producers or organizations.</p>	<p>Jim Bowcutt 801-536-4336 jdbowcutt@utah.gov</p>
<p>Canal Inventory grants can be used to help identify canals and for canal owners and irrigation companies to create safety management plans to ensure canal productivity in the future.</p>	<p>GRANT</p>	<p>\$130,000 was provided for the inventory for 3 years.</p>	<p>Kent L. Jones 801-538-7240 kentljones@utah.gov</p>

PROGRAM	OBJECTIVE	APPLICANT
Rural Development Business & Cooperative Programs		
Renewable Energy and Efficiency Grants (REAP)	REAP is a matching grant program for renewable energy systems or energy efficiency improvements.	Small businesses, farmers and ranchers.
Value-Added Producer Grants (VAPG)	VAPG is a matching grant program for value-added ventures.	Agricultural producers and producer organizations.
Farm Labor Housing Loans and Grants	Farm Labor Housing Loans and Grants aim promote safe, well-built affordable housing for farm labor workers.	Farms, farm organizations and corporations, not-profits, Tribes, and public agencies.
Bureau of Reclamation		
Colorado River Basin Basinwide Program (includes 25% cost share from Basin States Funds)	The Colorado River Basin Basinwide Program is focused on reducing salinity in the Colorado River for the lower basin and allowing the upper basin to develop its appropriated water.	Irrigation and water districts, canal companies, tribes, states, and other entities with water or power delivery authority.
WaterSMART(Sustain and Manage America’s Resources for Tomorrow)	WaterSMART provides funding for projects that seek to conserve and use water more efficiently, increase the use of renewable energy, protect endangered species, or facilitate water markets.	Irrigation and water districts, tribes, states, and other entities with water or power delivery authority.

USES	LOAN / GRANT	TERMS / CONDITIONS	CONTACTS
<p>Can fund up to 25% of project costs including wind, solar, biomass, geothermal, or other renewable energy sources. Also can be used to make energy efficiency improvements.</p>	<p>GRANT</p>	<p>Availability of grant funds is announced annually in the Federal Register. Contact the state office for more specific information for the current year.</p>	<p>Perry Mathews, B & CP Director 801-524-4328 perry.mathews@ut.usda.gov Lori Silva B & CP Specialist and Energy Coordinator (Central to Southern Utah) lori.silva@ut.usda.gov 801-524-4323 www.rurdev.usda.gov/ut</p>
<p>Used to conduct feasibility analyses, develop business and marketing plans and conduct other types of studies to help establish a viable value added business venture. Can also be used to establish working capital accounts.</p>	<p>GRANT</p>	<p>Feasibility studies, business plans, and possibly other studies will be required before grant funds can be used as working capital.</p>	<p>Perry Mathews, B & CP Director 801-524-4328 perry.mathews@ut.usda.gov Lori Silva B & CP Specialist and Energy Coordinator (Central to Southern Utah) lori.silva@ut.usda.gov 801-524-4323 LuAnn Wilson B&CP Specialist and Specialty Lending Coordinator (Central to Northern Utah) luann.wilson@ut.usda.gov 801-524-4322 www.rurdev.usda.gov/ut</p>
<p>Can be used for new construction or acquisition with substantial rehabilitation of farm labor housing. On or off- farm eligible.</p>	<p>DIRECT LOAN or GRANT</p>	<p>Up to 102% of market value. Loans can be paid back for up to 33 years at 1%interest.</p>	<p>Janice Kocher, Director, Housing Programs 801-524-4308 janice.kocher@ut.usda.gov</p>
<p>Used mainly for irrigation system improvements such as canal lining and piping. Also used for point sources such as saline springs, wells, and other saline discharges.</p>	<p>GRANT</p>	<p>Based on cost per ton of salt retained. Uses a 50 year life for projects. Projects must be in the Colorado River Basin and retain or remove salts from the river.</p>	<p>Kib Jacobson 801-524-3753 kjacobson@usbr.gov</p>
<p>Can fund up to 50% of projects that try to reduce water use or improve water efficiency, use more renewable energy, protect endangered species or provide water to consumers.</p>	<p>GRANT</p>	<p>Applicants must be irrigation and water districts, tribes, states and other entities with water or power delivery authority and must go through a competitive FOA process.</p>	<p>Scott Blake 801-379-1069 sblake@usbr.gov Applications can be submitted through www.grants.gov and more information about the program and the application process at http://www.usbr.gov/WaterSMART/grants.html.</p>