

UTAHNS' VISION FOR 2050

AGRICULTURE



*Your Utah,
Your Future*



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UTAHNS' VISION FOR 2050

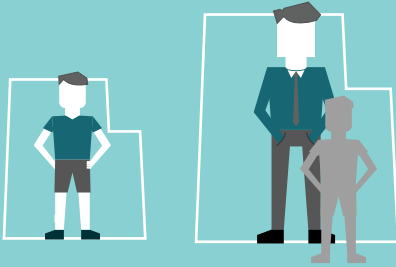
AGRICULTURE



YOUR UTAH, YOUR FUTURE

PROCESS

UTAH IS GROWING.



TODAY

There are three million people living in Utah.

2050

By 2050 there will be 5.4 million—the population will nearly double in 35 years!

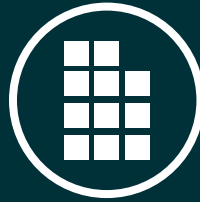
THAT MEANS

2 x the

HOMES JOBS SKIERS
CARS STUDENTS FOOD

OUR GOAL

HELP UTAHNS CREATE A VISION FOR UTAH'S FUTURE



11 TOPICS

Utahns' values guided the selection of 11 topics critical to the future of Utah.



UTAHNS' VALUES

Values studies told us not just what Utahns care about, but why they care about those things.



ACTION TEAMS

Experts from across the state studied the topics and helped shape potential scenarios for the future.

SCENARIOS



8 ACTION TEAMS

OF 400 EXPERTS WORKED FOR 18 MONTHS TO DEVELOP POTENTIAL SCENARIOS FOR UTAH'S GROWTH ACROSS EACH TOPIC.

YOUR UTAH, YOUR FUTURE SURVEY



53,000 UTAHNS

WEIGHED IN ON EACH TOPIC AND EACH SCENARIO, TELLING US WHAT THEY WANT UTAH TO LOOK LIKE IN 2050.

VISION FOR 2050



A COMBINATION

OF SURVEY RESULTS, VALUES, AND ACTION TEAM INPUT FORMED A VISION FOR UTAH'S FUTURE.

Utahns want to significantly improve their self-sufficiency and food security by growing more food locally.

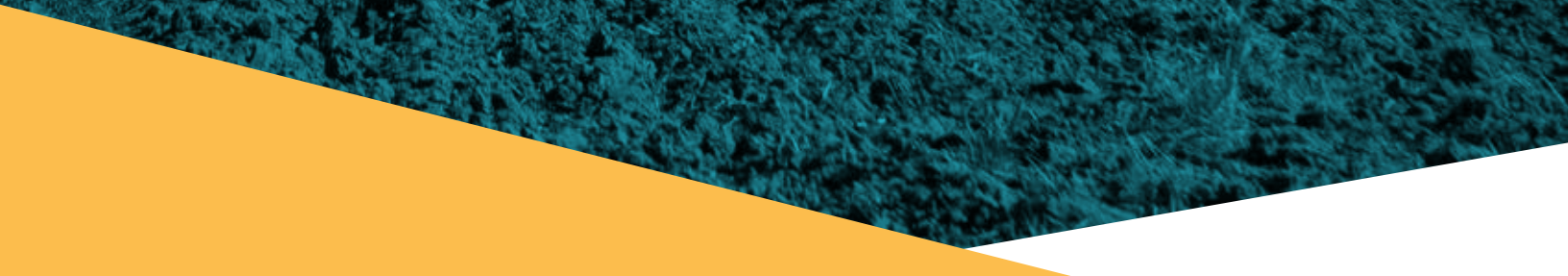
INTRODUCTION

UTAH DOES NOT PRODUCE ENOUGH FOOD TO SUSTAIN ITSELF. Currently, the state produces 3% of its fruit needs, 2% of its vegetable needs, and around 25% of its dairy needs. Utahns want to significantly improve their self-sufficiency and food security by growing more food locally. Utahns believe that eating more locally grown food will also be healthier for them and their families.

LOSS OF AGRICULTURAL LAND AROUND GROWING METROPOLITAN AREAS IS ONE OF THE MOST INTRACTABLE PROBLEMS NATIONWIDE. Much of Utah's best land and climate for producing fruits and vegetables is located along the Wasatch Front, where farms are currently being replaced by homes and businesses, as they have for many decades. Stopping this trend and increasing Utahns' ability to rely on local foods will take concerted action by many people and institutions.

YOUR UTAH, YOUR FUTURE

VISION FOR AGRICULTURE



THE VISION

Utahns 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.

Utahns 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 across the state.



GOALS

- 1** Dramatically increase production of fruits, vegetables, and dairy products in Utah.
- 2** Increase Utah's production of grains and proteins to keep up with Utah's population growth.
- 3** Improve Utah's food self-sufficiency.
- 4** Improve Utahns' access to healthy, locally grown food.
- 5** Strengthen Utah's agricultural economy.

KEY STRATEGIES

- 1** Treat agriculture as a highly valued industry cluster.
- 2** Create new distribution channels for Utah farm products that cut out the “middle man” by selling directly to Utah consumers.
- 3** Create a toolbox of agricultural preservation options for Utah communities that are consistent with private property rights and Utahns’ values.
- 4** Keep irrigation water in food production.
- 5** Put new lands into agricultural production where feasible.
- 6** Shift agriculture from animal-consumed crops (e.g., alfalfa and hay) to human-consumed crops (e.g., fruits and vegetables) where feasible.
- 7** Increase urban farming.
- 8** Investigate and apply the best worldwide practices for producing food in new, creative ways (e.g., vertical farming, ultra-low water use production, and co-locating with other industries for heating).

For more details on these and other strategies, please refer to the recommended strategies section beginning on p. 35

BACKGROUND:

WHERE WE ARE TODAY



AGRICULTURE REMAINS AN IMPORTANT PART OF RURAL UTAH'S ECONOMY. ACCORDING TO UTAH AGRICULTURAL STATISTICS, UTAH'S AGRICULTURAL SALES EQUAL \$1.5 BILLION.

For centuries, native populations farmed and raised animals along Utah's water bodies. By the mid-1800s, Utah pioneers began raising livestock, growing crops, and diverting water to their lands. These early pioneers relied largely on locally grown food to feed themselves, and agriculture was the primary industry in the state. As Utah's population has grown, however, the economy has diversified, more food is being imported, and much of our best agricultural land has been converted to homes, businesses, and communities.

Agriculture in Utah—particularly the production of fruits and vegetables—has been in steady decline over the last several decades.

Many of the best soils and climates for growing fruits and vegetables are located along the Wasatch Front, where urban growth is pressuring the conversion of farmlands into housing, businesses, and communities. As a result, the acreage of fruit production was cut in half between 1987 and 2006, and the trend is continuing at a rate that will eliminate almost all of Utah's orchards by 2050.

Food crops in Utah have decreased for additional reasons. As importing produce has become more efficient, Utah increasingly relies on fruits, vegetables, and dairy from areas outside the state. Another barrier to growing local fruits and vegetables is the inability to find labor to work on farms and orchards. Many Utah farmers have also found that switching from growing fruits and vegetables to crops such as hay and alfalfa can reduce risks such as losing crops to freezing.

As a result of these changes, Utah now produces less than 3% of the state's fruit needs and 2% of its vegetable needs. In addition, the state produces only about a quarter of the dairy that it needs. Today, Utah is more than

self-sufficient when it comes to supplying protein and is also self-sufficient in grains. Given the near doubling of population, however, Utah will not be self-sufficient in protein or grains in 2050 unless production increases.

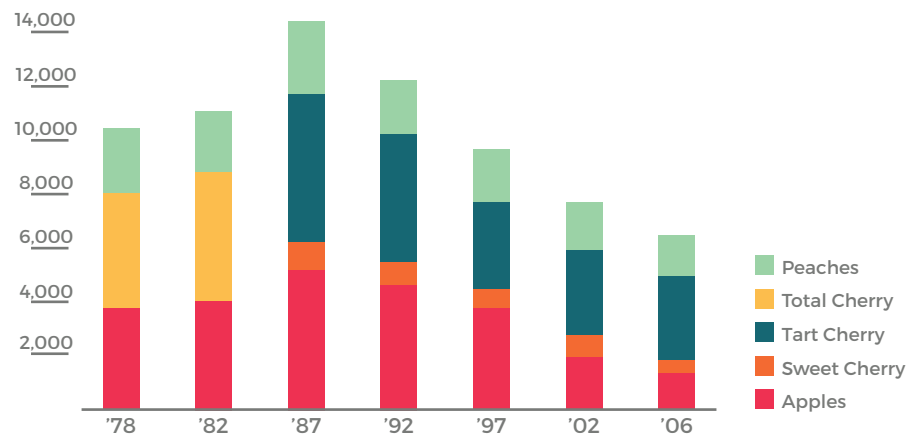
These low levels of local food production conflict with principles of self-sufficiency espoused by many Utahns and cause the state to rely on sometimes distant places (e.g., Mexico) to meet its food needs. Almost all of our fruits and vegetables are imported from areas hundreds or even thousands of miles away.

Utahns still have options to improve their agriculture. Some of the state's prime soils are still undeveloped on private or public lands, and there are now ways to move water to many of these areas. Utah will likely not become completely self-sufficient when it comes to food, but the state could increase the amount of food it produces. Utah has a longstanding trend, however, of converting farmland and farm water into urban development to accommodate the growing

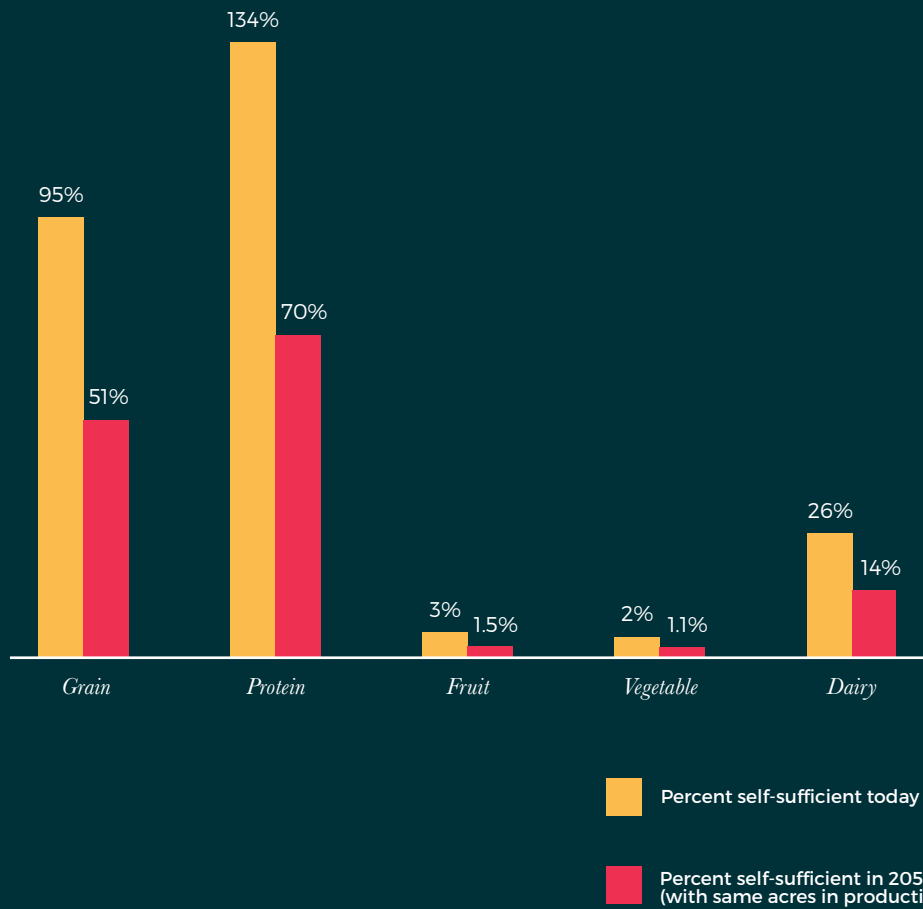
population. Unless Utahns take action, this trend will continue so that by 2050 Utah will produce almost no fruits or vegetables and only a small portion of its dairy needs, and the state will no longer be self-sufficient in protein and grains.

In 1987 we had more than 14,000 fruit acres in production. By 2006 this had shrunk to about 6,600 acres in production.

AGRICULTURAL PRODUCTION IN UTAH (ACRES IN PRODUCTION)



AGRICULTURAL PRODUCTION IN UTAH



HOW WE CREATED A VISION:

PEOPLE AND PROCESS



TO CREATE A VISION FOR THE FUTURE OF AGRICULTURE IN UTAH, A TEAM OF EXPERTS GATHERED OVER A TWO-YEAR PERIOD TO SHARE KNOWLEDGE AND EXTENSIVELY RESEARCH AND DISCUSS OPTIONS.

Members of the Agriculture, Public Lands, and Recreation Action Team were selected by Governor Gary Herbert and Envision Utah to represent a spectrum of professional experience and political affiliations. Team members included agriculture experts, legislators, county commissioners, farmers, and other experts from across the state. Between 2013 and 2015, the action team met to identify the choices related to agriculture, create scenarios for public input, and synthesize a vision for the future. The process of creating this vision also consisted of the following components:

- 1 A 2014 values study. This study was conducted to identify (1) what factors Utahns view as affecting their quality of life the most and (2) the underlying values and emotions tied to those factors. The study determined that agriculture has become increasingly important to Utahns across the state and that they want high-quality, locally grown food and greater food self-sufficiency. (More information on the values study can be found in the Underlying Values section of this report on p. 19.)
- 2 The "Build Your 2050 Utah" app. This app allowed Utahns to identify what factors concerning agriculture are most important to them and to interactively learn about the effects certain decisions would have. More than 3,000 people across Utah gave input through the app, and the information gathered indicates that Utahns strongly desire to increase Utah's agricultural production and improve the state's food self-sufficiency.

The action team used this information to create four different scenarios for the future of agriculture in Utah. The four scenarios each represented different strategies that resulted in different food self-sufficiency rates. These scenarios (p. 23) were presented to the public in the Your Utah, Your Future survey in spring 2015, and 52,845 Utahns weighed in.

After receiving public input on the four agriculture scenarios, the action team met to frame a vision, including goals and strategies, to achieve what Utahns said they wanted for agriculture in 2050.

ACTION TEAM MEMBERS

CHAIRS



**LEONARD
BLACKHAM**

*Former Commissioner, Utah
Department of Agriculture
and Food*



**KATHLEEN
CLARKE**

*Director, Public Lands Policy
Coordination Office*



**WENDY
FISHER**

Utah Open Lands



**BRAD
PETERSEN**

*Director, Utah Office of
Outdoor Recreation*

Alma Adams*Commissioner, Iron County***Bruce Adams***San Juan County Council***LuAnn Adams***Commissioner, Utah Department of
Agriculture and Food***Brandie Balken***Equality Utah***Brad Barber***Barber Consulting***Roger Barrus***Utah House of Representatives***Mallory Bateman***Utah Foundation***John Bennett***Utah Quality Growth Commission***Scott Chew***Cattle and Sheep Rancher, Utah House of
Representatives***Gene Ciarus***Grand County Council***Mark Clemens***Utah Chapter, Sierra Club***Mark Compton***President, Utah Mining Association***Larry Crist***U.S. Fish and Wildlife Service***Jim Dabakis***Utah State Senate***LaNiece Davenport***Wasatch Front Regional Council***Joan Degiorgio***Nature Conservancy***Jack Draxler***Utah House of Representatives***Hans Ehrbar***University of Utah Department of
Economics***John Evans***Petzl Climbing Equipment***John Fairchild***Utah Division of Wildlife Resources***David Garbett***Southern Utah Wilderness Alliance***Julia Geisler***Executive Director, Salt Lake Climbers
Alliance***Kerry Gibson***Commissioner, Weber County***Laura Hanson***Executive Director, Jordan River Commission***Jon Hardman***Natural Resource Conservation Service***David Hinkins***Utah Senate***Sarah Hiners***University of Utah Metropolitan Research Center*

Lynn Jackson*Grand County Council***Layne Jones***Mountain Accord***Peter Knudson***Utah Senate***Mike Kohler***Wasatch County Council***Ashley Korenblat***Public Land Solutions***David Livermore***Utah State Director, Nature Conservancy***John Mathis***Utah State Legislature***Chris McCandless***Sandy City Council***Kay McIlff***Utah House of Representatives***Tara McKee***Utah Office of Outdoor Recreation***Michael Merrill***Salt Lake Chamber***Thayne Mickelson***Utah Conservation Commission***Wayne Niederhauser***Utah Senate***Mike Noel***Utah House of Representatives***Ralph Okerlund***Utah Senate***Juan Palma***State Director, U.S. Bureau of Land Management***Randy Parker***Utah Farm Bureau***Ashley Patterson***Wasatch Community Gardens***Kent Peatross***Commissioner, Duchesne County***Julie Peck-Dabbling***Salt Lake County Open Space & Urban Farming***Warren Peterson***Vice President, Farmland Reserve***Nathan Rafferty***President, Ski Utah***Curtis Rowley***Cherry Hill Farms***Dustin Rowley***Utah Association of Conservation Districts***Eric Sadler***Wasatch Mountain Club*

Douglas Sagers

Utah House of Representatives

Selma Sierra

*Director of Energy and Environmental
Policy, Energy Dynamics Laboratory*

Wesley Smith

Salt Lake Chamber

George Sommer

Chair, Blue Ribbon Fisheries Commission

Mike Styler

Utah Department of Natural Resources

Ed Sunderlan

Sanpete County Farmer

Brent Tanner

*Executive Vice President, Utah Cattlemen's
Association*

Gordon Topham

Commissioner, Sevier County

Elizabeth Tubbs

Grand County Council

David Ure

Summit County Council

Ron Vance

*Recreational and Resource Manager, U.S.
Forest Service*

Vicki Varela

Managing Director, Utah Office of Tourism

Evan Vickers

Utah Senate

Logan Wilde

Morgan County Council

WHY AGRICULTURE MATTERS:

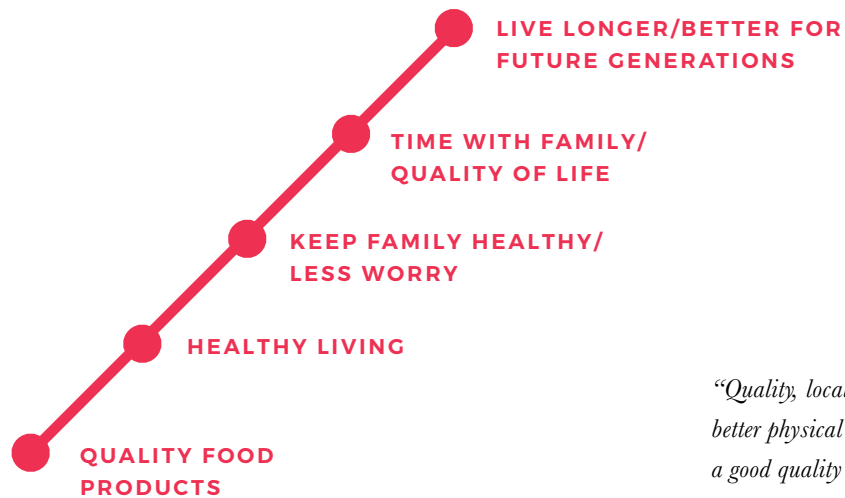
UTAHNS' VALUES

In 2014, Envision Utah conducted a statewide values study to identify (1) what factors Utahns view as affecting their quality of life the most and (2) the underlying emotions and values tied to those factors.

IN A 2007 SURVEY, 53% OF UTAHNS SAID THAT FARMING AND RANCHING ARE CRITICAL TO THE FUTURE OF THE STATE. IN 2014, THAT NUMBER HAD GROWN DRAMATICALLY TO 74%.

Utahns want a safe, secure place for themselves and their families, which they believe will lead to a sense of personal security and peace of mind concerning those they love. Agriculture impacts these desires in two significant ways. First, having high-quality, locally grown foods leads to better physical and mental health for Utahns and their families, which reduces worry and stress and leads to a sense of family love and that they are doing their part for future generations. Second, Utahns want to produce food locally so they are food self-sufficient and aren't dependent on other states and countries. This gives them a sense of self-reliance and security for themselves and their families.

AGRICULTURE AND FUTURE GENERATIONS



“Quality, locally grown food products give me better physical and mental health and provide a good quality of life, so I can better take care of my family. This allows me and future generations to lead better, longer lives.”

AGRICULTURE AND SECURITY



“Locally grown food supports local agricultural jobs as well as local and rural economies. By producing more food locally, Utah can be more self-reliant and sustainable, which gives me a sense of security.”

CHOICES FOR THE FUTURE:

SCENARIO SUMMARIES

The following scenarios were created by the Agriculture, Public Lands, and Recreation Action Team to represent possible outcomes for Utah's agriculture in 2050. The scenarios differed in the following variables:

- How much agricultural land is converted to other uses
- How much water Utahns take from farmland
- What kinds of crops are grown

- Whether additional land is cultivated
- The resulting levels of food self-sufficiency

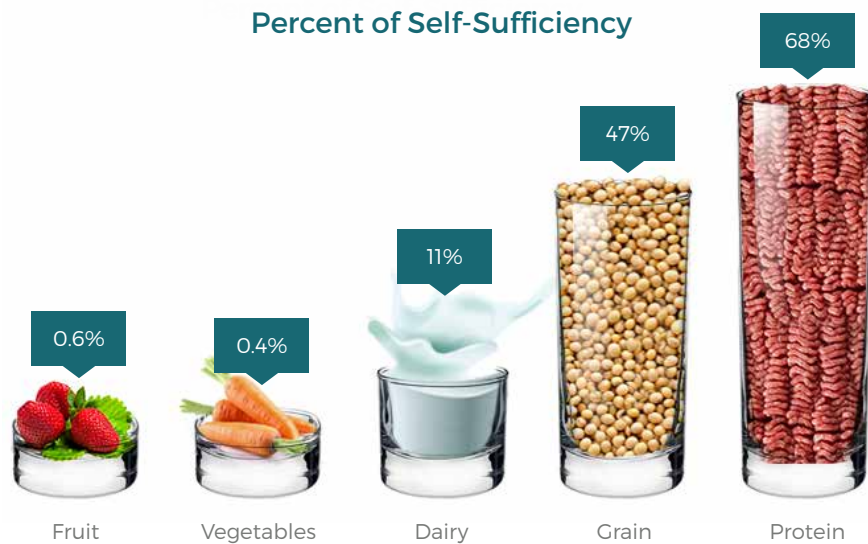
The scenarios were presented to the public as part of the Your Utah, Your Future survey in spring 2015.

The scenarios were titled Allosaurus, Bonneville Trout, Seagull, Segó Lily, and Quaking Aspen (the state fossil, fish, bird, flower, and tree).

97% OF UTAHNS CHOSE ONE OF THE TWO SCENARIOS IN WHICH FOOD PRODUCTION IN UTAH INCREASES SUBSTANTIALLY BY 2050.

ALLOSAURUS SCENARIO

Very many farms gone; much less food self-sufficiency

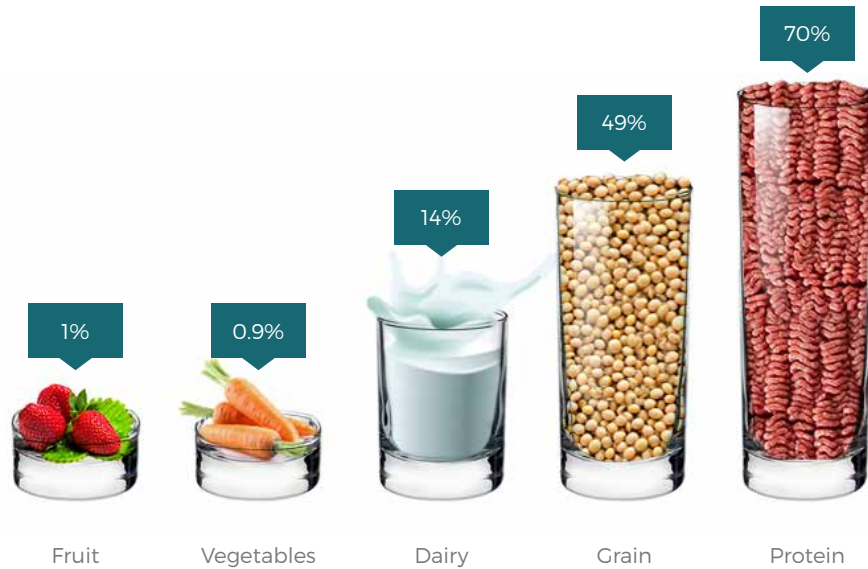


As Utah's population almost doubles by 2050, food production in Utah decreases significantly. Farmland and water along the Wasatch Front are sold to accommodate expanding communities. Additional water is moved from working farms to urban areas, taking those farms out of production as well. No new farmland is added, and almost all fruit and vegetable production is lost. Protein, dairy,

and grain production also decline. As Utah grows, significantly less local food is grown per person, and almost all of our fruits, vegetables, and dairy, as well as some grain and protein, must be imported to feed our population. Utah is increasingly susceptible to droughts, food supply interruptions, and food contamination that occur in the states and countries that produce our food.

BONNEVILLE TROUT SCENARIO

Many farms gone; less food self-sufficiency

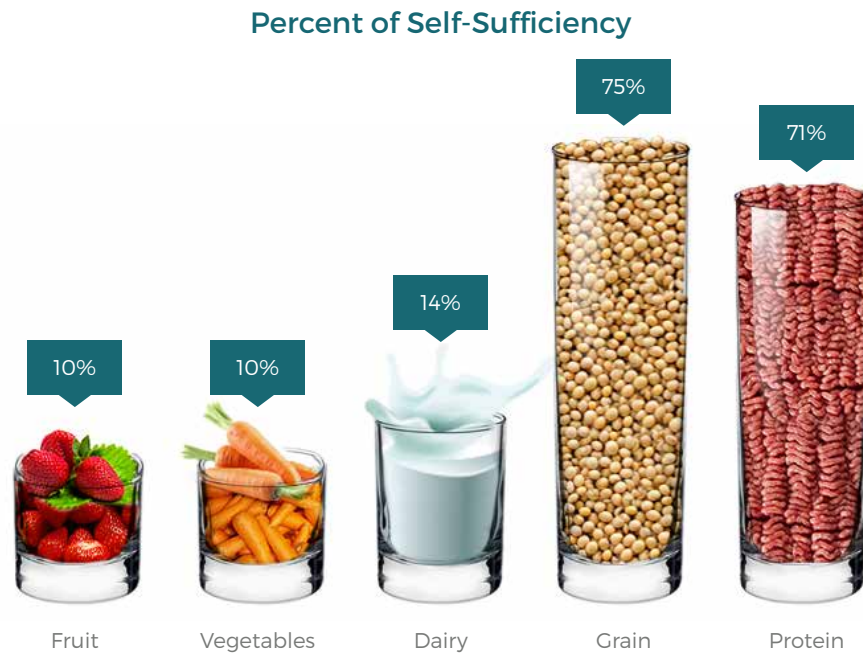


As Utah's population almost doubles by 2050, food production in Utah decreases. Although farmland and water along the Wasatch Front is sold to accommodate expanding communities, no additional water is moved from working farms to urban areas so those farms remain in production. No new farmland is added, and most of our fruit and vegetable production is lost. Protein, dairy, and

grain production also decline. As Utah grows, less local food is grown per person, and almost all of our fruits, vegetables, and dairy and some protein and grain must be imported to feed our population. Utah is increasingly susceptible to droughts, food supply interruptions, and food contamination that occur in the states and countries that produce our food.

SEAGULL AND SEGO LILY SCENARIO

Some farms gone; some crops change to increase food self-sufficiency

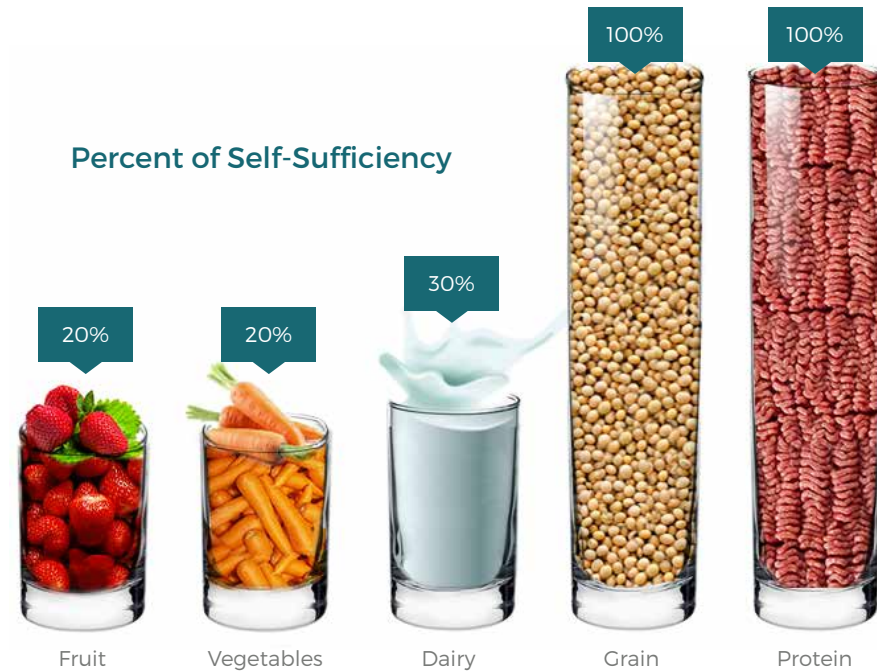


As Utah's population almost doubles by 2050, food production in Utah increases for some products. Some farmland and water along the Wasatch Front are sold to accommodate expanding communities, but our communities are compact and use less agricultural land. Because no additional water is moved from working farms to urban areas, those farms remain in production. No

new farmland is added, but 13% of our irrigated alfalfa and hay is converted to fruit and vegetable production, though we still need to import 90% of our fruit and vegetables. Because of improved self-sufficiency, Utah is somewhat less susceptible to droughts, food supply interruptions, and food contamination that occur in the states and countries that produce our food.

QUAKING ASPEN SCENARIO

Increased cropland and food self-sufficiency



As Utah's population almost doubles by 2050, food production in Utah increases for all products. Some farmland and water along the Wasatch Front are sold to accommodate expanding communities, but our communities are compact and use less agricultural land. Though farmland is converted to homes and businesses, much of the agricultural water from those lands is transferred to other farmland instead of being used for those homes and businesses. Because no additional water is moved

from working farms to urban areas, non-urbanized farms remain in production. New farmland is added, and 29% of our irrigated alfalfa and hay is converted to fruit and vegetable production, though we still need to import 80% of our fruits and vegetables. Protein, dairy, and grain production also increase. Because of improved self-sufficiency, Utah is less susceptible to droughts, food supply interruptions, and food contamination that occur in the states and countries that produce our food.

YOUR UTAH, YOUR FUTURE

SURVEY RESULTS

In April and May 2015, 52,845 Utahns shared their voice through the Your Utah, Your Future survey. Participants chose their favorite scenarios for Agriculture and other topics. After choosing their favorite scenarios, survey participants had the option to answer a series of questions to prioritize agriculture among other issues, determine the most important outcomes related to agriculture, and identify how willing they would be to take specific actions to ensure those outcomes. The survey results were cross-checked against a random-sample survey to ensure they represented the desires and opinions of Utahns.

1

WHAT UTAHNS WANT FOR AGRICULTURE

Utahns want to protect and increase food production in Utah. 97% chose one of two scenarios in which food production in Utah substantially increases for all products by 2050. In both these scenarios, Utah's communities grow more compactly and use less agricultural land for urban development. Though some farmland is converted, much of the agricultural water from those lands is transferred to other farmland. Other land is put into production, and a portion of Utah's irrigated alfalfa and hay is converted to fruit and vegetable production. Protein, dairy, and grain production also increase.

2

WHY UTAHNS WANT IT

Utahns want to improve food self-sufficiency to be less susceptible to droughts, food supply interruptions, and food contamination that occur in the states and countries that produce Utah's food. Utahns also want to feed themselves and their children healthy, locally grown food.

3

WHAT UTAHNS ARE WILLING TO DO

Utahns are highly willing to cut back on watering their lawns to ensure there is enough water for agriculture. They are also highly willing to avoid building on high-quality farmland and to build their communities more compactly in order to slow the amount of farmland being converted to urban uses. In addition, Utahns are willing to spend more money building water infrastructure to bring non-agricultural water to growing urban areas.

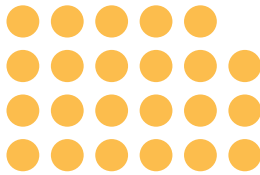
WHAT UTAHNS WANT



WHY UTAHNS WANT IT

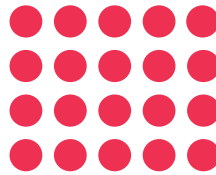
(OR WHAT OUTCOMES UTAHNS EXPECT FROM AGRICULTURE)

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



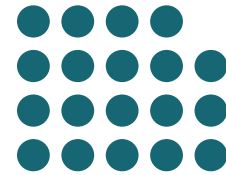
23%

Improving Utah's food self-sufficiency



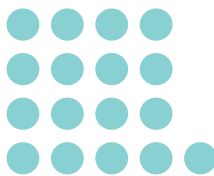
20%

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

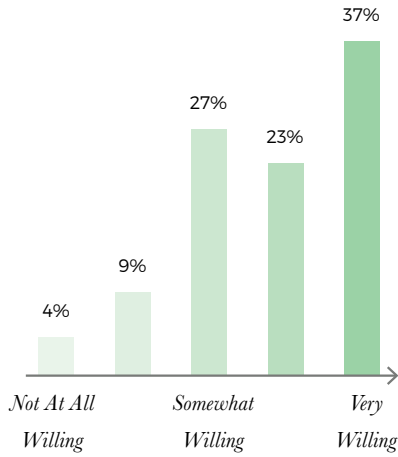


8%

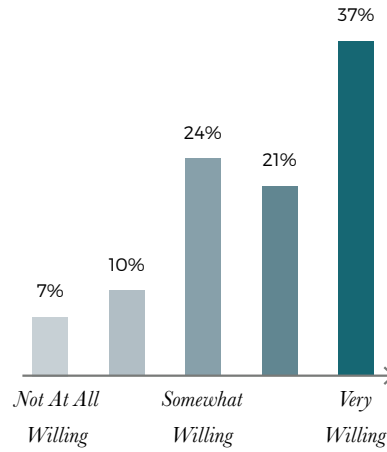
Allowing agricultural land and water to convert through market forces to higher-paying uses like houses and businesses

WHAT UTAHNS ARE WILLING TO DO TO EXPAND AGRICULTURE

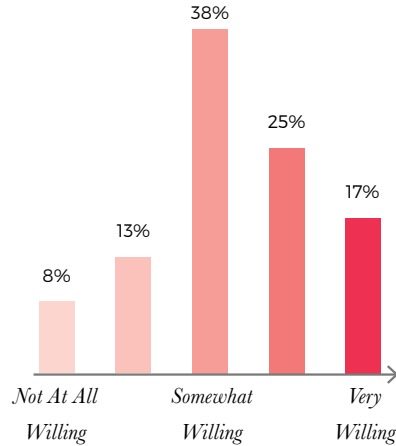
There will be less water to use for watering your lawn.



Utah would no longer be able to build homes and businesses where high-quality agricultural lands exist.

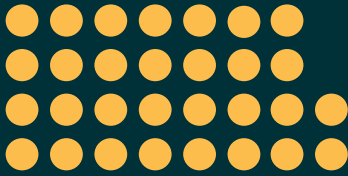


We will need to spend more money developing water infrastructure to move non-agricultural water to urban areas.



OTHER RESULTS THAT WOULD AFFECT AGRICULTURE

OUTCOMES UTAHNS EXPECT FROM WATER



30%

Ensuring there's plenty of water for farms and food production

OUTCOMES UTAHNS EXPECT FROM WATER

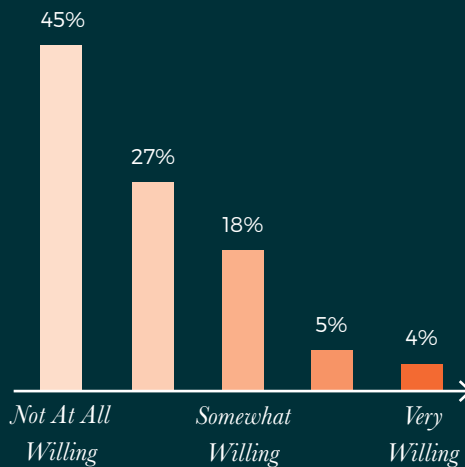


3%

Ensuring we have large yards

WILLINGNESS TO HAVE LARGER HOME LOT SIZES

We will convert more farmland into houses.



REALIZING THE VISION:

RECOMMENDED STRATEGIES



1 Increase the profitability of agriculture.

- a) Promote agriculture as an industry cluster with the same support that other important industry clusters enjoy in Utah.
- b) Assist farmers and ranchers in adopting new agriculture technologies to increase efficiency and yields.
- c) Capture additional profits on Utah's agricultural products by increasing value-added processing of such products.
- d) Create new distribution channels for Utah farm products that cut out the "middle men" by selling directly to Utah consumers.

2 Keep Utah's irrigation water and best farmland in agriculture.

- a) Identify high-quality agricultural lands.
- b) Assist agriculture in becoming more profitable.
- c) Create a toolbox of agricultural preservation options for Utah communities that are consistent with private property rights and Utahns' values.
- d) Maintain use of irrigation water for food production, moving the water to other lands if necessary, rather than using it to serve communities and other industries.

3 Put new lands into agricultural production where feasible.

- a) Convert new private lands into agricultural lands.
- b) Encourage water-efficient practices and allow saved water to be shifted to additional agricultural lands where practical.
- c) Work with state and federal agencies to produce crops on some public lands.
- d) Improve rangeland management and explore new rotational grazing techniques to increase grazing efficiency.

- 4 Shift agriculture from animal-consumed crops (e.g., alfalfa and hay) to human-consumed crops (e.g., fruits and vegetables) where feasible.**
 - a) Study and address the barriers to growing fruits, vegetables, and other crops for human consumption in various areas of the state.

- 5 Increase production of and access to local foods in urban areas.**
 - a) Promote and increase the number of local food markets.
 - b) Promote backyard agriculture and community gardens.
 - c) Promote cooperative neighborhood orchards and gardens.

- 6 Investigate and apply the best worldwide practices for producing food in new, creative ways (e.g., vertical farming, ultra-low water use production, and co-locating with other industries for heating).**

