

RESILIENCE IN NEW MEXICO AGRICULTURE

Strategic Plan

THE AG PLAN

- > Statewide agriculture task force recommendations
- Reforms to strengthen supply chains, land and water use, next generation of farmers and ranchers, and economic viability

BACKBONE ORGANIZATIONS

New Mexico First New Mexico State University

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Executive Summary

Food and agriculture industries are core components of New Mexico's food system. This system's strength is vital to any resident who cares about individual health, viable rural and tribal communities, as well as regional economic stability. Our state's food and agriculture benefit from many diverse stakeholders who share a common goal: to support agriculture sectors with staying power in New Mexico. These stakeholders believe a strong food system can serve the needs of all residents in our state – but only if it is truly resilient.

Resilience in New Mexico Agriculture is a project that began in 2016 to address unprecedented challenges to the health of the industry – issues no one farmer, rancher or businessman could tackle alone. At 13 regional meetings across the state, over 600 stakeholders identified major issues such as:

- An aging population of farmers and ranchers
- Increasing pressure on water and other natural resources
- Rising costs for land, energy, equipment and other production needs
- Challenges accessing or understanding farm loans, grants and repayment programs
- Unsustainable farmer and rancher incomes
- Insufficient processing, storage and market access
- Complex regulations
- Public health needs regarding nutrition and food access
- Food waste

Following the completion of these regional meetings, and the compilation of their findings in a published <u>background report</u>, a 35-member task force of industry leaders and experts was assembled to develop solutions. The taskforce worked in committees to develop recommendations and strategies in the following subject areas:

- The next generation of farmers and ranchers
- Water and land use
- The agricultural supply chain
- Agricultural economic viability

The result of the task force's work is this document – *The Resilience in New Mexico Agriculture Strategic Plan*. Hereafter simply called "the Ag Plan," its broad recommendations are coupled with specific, actionable strategies. The implementation of this plan is critical to achieving greater agricultural and natural resource resiliency, as well as a secure future for the generations of farmers and ranchers to come. This report will be presented to the governor, legislature, potential funders and communities statewide.

Introduction

Agriculture is part of New Mexico's cultural and economic foundation, affirmed in each generation through sweat, successes and shared experiences. This state's farmers and ranchers are often tenacious, hands-on jacks-of-all-trades who take pride in building and maintaining a successful operation. But while many in agriculture can handle troubles on their own farms and ranches, it is increasingly clear we live in a world that presents greater challenges. Changes in scientific understanding, growing urban populations, issues in soil and water quality, and widespread misunderstandings cannot be solved by one person alone. Left unaddressed they could deliver serious repercussions for many rural communities and the state as a whole.

Additional factors influencing agriculture in New Mexico are the health and nutritional needs of the state's people. A fifth of New Mexico's population lives in poverty, making it more difficult to afford healthy foods. Further, heart disease remains the leading cause of death in the state – accounting for 20 percent of all deaths. Diabetes is also on the rise, with an estimated 10 percent of New Mexicans suffering from the Type 2 form of the disease. Diet, and more specifically, a lack of access to fresh produce are factors in these widespread health concerns.¹

Efforts are underway to address the challenges, including those of multiple organizations that have been advancing sound agricultural practices for many years. Beginning in 2016, the New Mexico State University (NMSU) Cooperative Extension Service partnered with New Mexico First to launch *Resilience in New Mexico Agriculture*. This project is intended to empower industry stakeholders to withstand new challenges, and grow stronger despite those difficulties, through proactive planning and action. Guiding this project is both the definition of "resilience" – the ability to recover from and adapt to setbacks – as well as the collective impact model advocating wholescale change through broad stakeholder representation and cooperation.

The project included 13 regional meetings across the state – bringing together over 600 stakeholders who identified challenges and opportunities facing New Mexico agriculture. Based on that input, a 35-member task force worked over six months to create this strategic plan. It addresses four broad categories:

- Next generation of farmers and ranchers
- Water and land use
- Agricultural supply chain
- Agricultural economic viability

Separate committees, comprised of experts and industry leaders, worked on each topic. The recommendations and strategies are designed to be actionable. They also reflect the consensus of the task force and are inclusive of different sectors of agriculture. No part of the plan can be enacted at the expense of another.

Ultimately, this project advances three activities: reforms to strengthen agricultural resilience in New Mexico; support for the industry from policymakers and stakeholders; and improved understanding by the public about the values of agriculture to the state's future. The organizers hope this effort contributes to a bridge of understanding between those who work in agriculture every day, and the rest of New Mexico that benefits from those efforts.

¹ (New Mexico Department of Health)

Next Generation of Farmers & Ranchers

Overview

New Mexico agriculture is a deeply-rooted profession where families of all cultures have worked the land for generations. In recent decades, fewer younger operators are entering the business – resulting in an aging workforce. The average age of a New Mexico principal operator is 61, while less than five percent are under the age of 35 and nearly a third are 70 or older. The state recently experienced a slight uptick in the number of younger producers, but there are still not enough incoming agriculturists to take the place of those preparing to retire.

New Mexico needs new blood in agriculture. These new entrants can either be young and looking to start lifelong work, or older and wanting a career change or second job. Regardless of age, barriers to entry include high start-up costs, low profit margins and elevated levels of financial risk. Further, there are limited resources available for formal training and support.

In addition, young producers are not immune from the typical financial struggles experienced by most people their age. Student loan debt, building credit, affording healthcare and saving for retirement are issues that most young adults navigate as they begin careers. Young farmers and ranchers must juggle these issues while also meeting the daunting demands of lenders and creditors.

The low numbers of individuals entering farming and ranching holds huge implications for land use, transfer of water rights, and agricultural economic output. For agriculture to retain its economic influence in New Mexico, while providing meaningful income and employment, interventions will need to assist new growers. The task force proposes the following recommendations to ease burdens on young and beginning farmers and ranchers.

Recommendations and Strategies

RECOMMENDATION 1: EDUCATION AND TRAINING

Promote and expand agricultural education and training opportunities as pathways to successful careers in the industry, recognizing that new technologies should be deployed to reach young audiences.

Strategies

- a. Convene stakeholders to develop a framework and possible financing options for a centralized beginning farmer and rancher center at New Mexico State University to coordinate statewide outreach, education and technical services. See Appendix A for information on similar state models and opportunities.
- b. Increase financial and institutional support for agricultural education in K-12 public schools, including but not limited to existing programs such as Future Farmers of America (FFA) and 4-H. Funding may come from any combination of legislative appropriations, the Public Education Department or private funding.
- c. Encourage policymakers to partner with industry in developing an outreach campaign targeting students, parents, teachers and the general public to promote agriculture and food-related jobs in New Mexico.

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² (USDA NASS, 2012)

- d. Support the implementation of an ongoing, agricultural dual-credit initiative at NMSU to encourage youth to pursue agriculture as a career.
- e. Encourage the states' departments of economic development, workforce solutions, public education, higher education and agriculture to convene a group to identify effective best practices and incentives for state-approved, industry-led apprenticeship and mentorship programs as well as other workforce development opportunities that expand the state's food industry. Utilize the proposed NMSU beginning farmer and rancher center to coordinate and professionalize these opportunities. (For examples of apprenticeship and mentorship programs nationwide, see Appendix A.)

DEFINITIONS MATTER: APPRENTICESHIPS

Apprenticeships are a system of learning that combines on-the-job training with related classroom instruction. Registered apprenticeships must follow federal and state guidelines. Given the requirements, many apprenticeship programs are offered through educational institutions.

f. Support and expand agricultural incubator programs throughout New Mexico to provide hands-on training to aspiring farmers and ranchers. Encourage state and local government entities to assess potential locations for new incubation programs. (For models of agricultural incubator programs, see Appendix A.)

RECOMMENDATION 2: LAND ACCESS

Protect agricultural land for future generations, and enable opportunities for young and beginning farmers and ranchers to either own or secure long-term leases to productive, affordable land.

Strategies:

- a. Expand the LandLink website hosted at the Mid-Region Council of Governments to cover the entire state. Utilize economic development, federal or other private funds to secure adequate staffing and active matchmaking to sustainably support the website and service.
- b. Develop a community agriculture toolbox and training program that supports county and municipal governments interested in protecting agriculture viability plans. These actions would recommend policies and projects aimed at maintaining the economic viability of the agricultural industry and its supporting land base.³ (See Appendix A for program and toolkit models.)
- c. Minimize the loss of production agricultural lands to encroaching development by urging the state legislature to work with local governments, land trusts and other stakeholders to study low-cost, voluntary farm and ranch protection strategies such as agricultural district programs. Ensure that new or existing programs support beginning farmers and ranchers.⁴ (See Appendix A for examples of agricultural district programs.)
- d. Explore how economic tax and other incentives might be used in New Mexico to encourage current landowners to sell or lease agricultural assets to qualified beginning farmers and ranchers.

³ The task force identified state agencies such as the New Mexico Department of Finance and Administration (DFA), Local Government Division, or the New Mexico Department of Agriculture as potential leaders in developing an agricultural toolbox and training programs for young and beginning farmers.

⁴ Minnesota is the best example, includes sale and lease of agriculture assets; other states limited to leases.

e. Provide succession and transition planning services to retiring farmers and ranchers to ensure agricultural lands remain in production and viable for future generations. (See Appendix A for options.)

RECOMMENDATION 3: CAPITAL AND CREDIT ACCESS

Enable and expand opportunities for young and beginning farmers and ranchers to build and access credit and capital necessary to grow their businesses.

Strategies:

- a. Provide accessible agriculture business and financial planning services, potentially through a beginning farmer and rancher center at NMSU. Include training on how to enter into farming and ranching without consuming a great deal of debt. (Information on university-led and state-led models are presented in Appendix A.)
- Encourage the legislature to establish a federally approved "Aggie Bond" loan program within the New Mexico
 Department of Finance and Administration to help beginning
 farmers and ranchers purchase farmland, equipment,
 buildings and livestock. (See Appendix A for details.)
- c. Seek out funders to develop a competitive small grants program at the New Mexico Department of Agriculture (NMDA) for beginning farmers and ranchers to help purchase equipment and other resources. (Models from Texas and Massachusetts are detailed in Appendix A.)
- d. Establish a new student loan repayment program within the state's Higher Education Department for reimbursing individuals who operate farms or ranches in New Mexico. (See Appendix A for models.)
- e. Explore incentives to entice young farmers in urban areas.

 These programs could forgo taxes in exchange for job
 creation, food production or other benefits. These initiatives could primarily serve denser populations by
 creating greater food security and reducing the travel time of food.
- f. Explore the use of incentives for providing sales or property tax exemptions for equipment and buildings purchased or constructed during the first five years of a new agricultural operation. (For example, New York exempts newly constructed agricultural structures from property taxes for ten years.)

ECONOMIC SUPPORT FOR AGRICULTURE START-UPS

Aggie Bonds

Several states operate special loan programs for beginning farmers and ranchers. One of the most common types are called Aggie Bonds.

Approximately 16 states operate such programs.

Beginning Farmer Tax Credits
These programs allow agricultural asset owners to earn tax credits for selling or leasing their land, equipment or livestock to beginning farmers.
Examples exist in Iowa, Nebraska,
Colorado and Minnesota.

Capital Gains Tax Exclusion
A capital gains tax is levied
on investment or real estate profits
received when the owner sells for an
amount higher than the purchase
price. In the case of farm and ranch
land sales, some people advocate for an
exemption of this tax when the land is
sold to a beginning farmer or rancher.

Water & Land Use

Overview

Healthy land and adequate water are essential for agricultural resilience. Farmers and ranchers simply cannot grow crops or raise livestock without these resources. New Mexico's dry climate, as well as competing needs for land and water, create an urgent need for effective policy in these areas.

People in agriculture fully understand they are not the only ones that need these resources. As stewards of the land, many growers consider themselves the first line of defense for protecting the health of water, soil and wildlife. They support healthy watersheds that do not fall victim to catastrophic wildfires and that produce a stronger water supply. But, challenges can exist when balancing habitat needs and agricultural production. Environmental regulations may foster robust ecosystems, but they can also impose financial burdens on land owners.

Agriculture also faces inadequate water supply data, coupled with legal concerns regarding water rights and conservation. For example, New Mexicans own far more water rights (on paper) than actually exist in the state's rivers or aquifers. This imbalance creates legal, environmental and economic planning problems. Many of the state's water rights are not legally adjudicated; this means some water users do not know how much water they can use or sell. These unsettled rights include over 72,000 non-Indian defendants plus 18 tribes or pueblos.¹ Furthermore, farmers and ranchers point to a need for increased clarity and consistency in water rights administration in order for them to plan and manage their businesses.

These concerns and others can be addressed through sound planning, improved research and smart collaboration between growers, policymakers and regulators. The task force proposes the following actions.

Recommendations and Strategies

RECOMMENDATION 4: WATER RIGHTS

Ensure that the legal and permitting processes for managing water rights are clear, well-administered and support conservation by water rights owners.

Strategies

- a. Eliminate disincentives to innovation and water conservation by water rights owners. (Examples of disincentives: legal barriers including uncertainty around water rights, local or regional regulatory practices, or common misunderstandings.)
- b. Improve administrative processes associated with existing laws:
 - i. Publish clarifying information, released by the Office of the State Engineer (OSE) and/or the New Mexico Attorney General, on the legal provision commonly known as "use it or lose it." Specifically,

- clarification is needed on legal and programmatic provisions influencing water rights sales, transfers or leases as described by New Mexico Statue 72-5-18.⁵
- ii. Determine how water users who wish to conserve should demonstrate or prove their preconservation water use amounts and thus avoid being later penalized when the water right is sold.
- iii. Clarify how to make use of existing water laws for groups of end-users (i.e., acequia, community ditch associations, conservancy districts).
- c. Expedite completion of the adjudication of active water rights cases.
 - i. Set target timelines for progress, with deadlines, and request the OSE to provide a minimum of annual progress reports to the public and legislature.
 - ii. Support the development of a public resource, including consumer-friendly information, on the water adjudication process.
- d. Minimize the loss of agricultural water by ensuring that major water rights transfers and water leases from agriculture to other purposes receive adequate public notice and are effectively regulated to consider the needs of downstream users as well as fiscal impacts on state and local governments. It is understood that regions face different challenges regarding future water supply.⁶

RECOMMENDATION 5: WILDLIFE HABITAT CONSERVATION

Advance a balanced approach to protection of both habitats and agricultural land-use.

Strategies:

- a. Promote species conservation and recovery by taking a broad watershed or land management approach to protection (instead of regulating species by species). Potential solutions include reforms to the Endangered Species Act (ESA), state land management policies, or other regulations.
- b. Ensure broader local and state stakeholder involvement in land and ecosystem management (including but not limited to ESA compliance).
- c. Expand and promote voluntary incentives for endangered species protection on agricultural land.
- d. Require fair financial compensation for land owners if their ability to use their land for agricultural is diminished by wildlife protection mandates.

RECOMMENDATION 6: WATER CONSERVATION AND SUPPLY

Pursue research, incentives and other strategies to advance water conservation and increased water supply.

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⁵ New Mexico Statute, Section 72-5-18: Water Allowance was passed in 2007. It was primarily intended to address farmer concerns regarding losing water rights if they practiced effective conservation. However, considerable uncertainty remains around the application and interpretation of the law, especially as it relates to users whose water rights have not been adjudicated.

⁶ The committee recognized that there are times, such as severe drought, when municipalities or other large water users may temporarily lease water from agriculture. In such circumstances, adequate compensation to the agriculture producer – and proper procedures in the application process – would be essential.

- a. Expedite research on water supply and depletion, including but not limited, to aquifer mapping, water banking, and other tools for measuring the actual volume of available water in New Mexico.
- b. Research voluntary incentives for non-agricultural large water users to use more brackish and reclaimed water. Expansion strategies should reduce freshwater use as well as protect groundwater and the environment.
- c. Promote the use of water-efficient crops that advance water conservation, and research opportunities for expanding the development of such crops for which there are viable markets.
- d. Research opportunities and legal barriers associated with increased water storage statewide, including aquifers and northern New Mexico reservoirs, with the goal of reducing evaporation loss.

RECOMMENDATION 7: WATERSHED RESTORATION

Advance organized and integrated watershed restoration that promotes multiple uses, with the goals of increased water supply, reduced catastrophic fires, improved soil health and overall healthier environments.

Strategies

- a. Pursue strategies that allow landowners to implement conservation management and protect accompanying water rights for future use.
- b. Implement techniques such as:
 - i. Forestry management and thinning
 - ii. Incentivizing restoration of perennial cover crops on agricultural lands for which the water rights are removed (temporarily or permanently)
 - iii. Deploying and funding best practices for watershed management and riparian restoration, including appropriate residual biomass standards, erosion control and healthy uplands
 - iv. Erosion control (i.e., low-water grasses and flood control including arroyo management)
 - v. Streambed management and flood control
 - vi. Removal of invasive plant species that use high volumes of water
- Advance soil health and moisture levels through conservation planning that supports rangeland, farming, urban lands and habitats, potentially certified and funded by the U.S. Natural Resources Conservation Services (NRCS).⁷

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⁷ Formerly known as the U.S. Soil Conservation Service, the NRCS provides financial assistance for landowners to make approved improvements to their lands.

Agricultural Supply Chain

Overview

Across the nation, getting food from the farm to your plate is the job of the agricultural supply chain. It is not enough to have great farmers and ranchers; food systems also rely on businesses that process, store and deliver

meats and produce, as well as markets where those foods get purchased. Without these many links in the food chain, the agricultural industry would not thrive economically, and consumers would lack easy access to healthy, affordable food.

In New Mexico, many of the links in our supply chain are weak – or non-existent. Strengthening this system can create new jobs, bring more money to the state, and feed more New Mexicans.⁸ Improvements to the supply chain may be production-oriented (such as more cold-storage facilities) or market-oriented (such as more "grown in New Mexico" branding).

Buying locally grown food – including produce, meat and value-added products – can create huge boosts to the state's economy. An estimated 90 percent of food eaten by New Mexicans comes from out of state; if we increased our consumption of local food by 15 percent, we could contribute an estimated \$725 million to New Mexico's economy. Local purchasing can also reduce import costs and negative environmental impacts, as well as build economic opportunities for local farmers and ranchers.

The final link in the supply chain is consumers. Unlike other industries where consumer purchasing is mostly an economic matter, food buying is fundamentally a public health issue. As noted in the introduction, many New Mexicans live in poverty or in "food deserts" where fresh produce is simply unavailable. ¹⁰ Regardless of income level, many New Mexicans care how their food is grown, processed and distributed. However, healthy food comes at price. Producers and processors must generate enough revenue to stay in business. Similarly, regulations can create high costs that get passed on to growers and customers who cannot afford them.

FOOD SAFETY AND MODERNIZATION ACT

The FSMA was enacted in 2011 and seeks to prevent contamination in food. The act gives the federal Food and Drug Administration new authority to regulate how foods are grown, harvested and processed.

Some farmers and ranchers worry about aspects of FSMA including uncertainty over equal treatment of domestic and foreign growers, the application of agricultural water provisions, and the need for extensive education, training and technical assistance. For example, some experts question the fairness of holding domestic growers to higher water quality standards while the USDA is unable to regulate foreign growers to meet the same standards.

Source: U.S. Farm Bureau

^{8 (}Joel Diemer, 2010)

⁹ (Collective Heritage Institute/ Bioneers, 2017) (Joel Diemer, 2010)

¹⁰ Much of New Mexico is considered a food desert, defined by USDA as an area where at least 500 people and/or at least 33 percent of the census tract's population reside more than one mile from a supermarket, or more than 10 miles for rural census tracts. Health Grove Research Engine assigns a letter grade to each county based on food, determining that 28 of 33 counties rank as "very low" food access for residents.

To improve agriculture's economic contributions to New Mexico, the task force proposes the following strategies and recommendations.

Recommendations and Strategies

RECOMMENDATION 8: RESOURCES AND TRAINING FOR FARMERS AND RANCHERS

Increase access to resources, training and technical assistance for producers to get their products to consumers.

Strategies:

- a. Address concerns associated with the federal Food Safety Modernization Act (FSMA), and support the New Mexico Department of Agriculture (NMDA) in the implementation of act.¹¹
- b. Provide training for food safety and other certification programs.
- c. Develop marketing strategies and training for New Mexico farmers and ranchers so they may better compete with out-of-state producers.
- d. Improve producers' and processors' knowledge of and access to financial resources including: economic development funding, individual loans and grants.

RECOMMENDATION 9:

NEW MEXICO BRANDING AND VERIFICATION

Achieve a unified brand for New Mexico agriculture products, and develop an equitable, industry-led process for verification of product authenticity.

Strategies:

- a. Identify existing efforts that brand and verify product authenticity, as well as the financial benefits of a verification process.
- Engage appropriate stakeholders (including government agencies private sector organizations) in deliberations to make consensus-based decisions for a unified brand, and determine a system to oversee the verification process.
- c. Identify public as well as private resources and funding for the branding and verification process (e.g., levy a voluntary, self-imposed industry fee to fund verification).

RECOMMENDATION 10:

INFRASTRUCTURE AND BUILDING CAPACITY FOR AGGREGATORS, PROCESSORS AND DISTRIBUTORS

Identify and increase supply chain infrastructure for small to medium-scale producers of animal products and specialty crops (i.e. cold and dry storage, processing and packaging, transportation and commercial kitchens).

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¹¹ Concerns include major risks to small and mid-sized operations, for whom the increased regulatory requirements are considered highly burdensome. Additional issues include uncertainty and lack of awareness about compliance rules, assistance programs, new rules and regulations affecting all sized producers, and the need for support for NMDA in efforts to implement programs.

- a. Determine strategies to address gaps in the infrastructure compared to producers' current and future needs (e.g. matching storage facilities with demand, reducing transportation costs, addressing New Mexico's higher than average trucking taxes).
- b. Research market, regulatory and other issues to determine capacity, challenges and opportunities to sustain and grow the facilities in the state.
- c. Research the current status of access to meat inspection so that New Mexico can have its own state program for in-state sales, while maintaining the existing USDA inspection program.¹²

RECOMMENDATION 11: RESTAURANTS, FOOD SERVICE AND RETAIL

Increase local buying and procurement by anchor public and private institutions such as hospitals, school districts, corporations, correctional facilities and senior centers.

Strategies:

- a. Educate food buyers in major anchor institutions about the value of buying locally grown food, with the goal of creating a major shift in purchasing behavior.
- b. Improve local companies' abilities to compete with out-of-state suppliers by:
 - Identifying policy and procurement code changes affecting public institutions that would incentivize purchasing local food. Examples include setting up a separate bidding process for local food producers from national producers.¹³
 - ii. Identifying more purchasing options for private entities. Examples include the "double up food bucks" program which grocery stores can participate in and increase access to local, fresh produce. There are also opportunities for large distributors to purchase locally.¹⁴
- c. Research policies regarding setting percentage goals or requirements for locally produced foods, including:
 - i. Legislative and regulatory examples from other states
 - ii. Existing laws, regulations, funding and programs in New Mexico
- d. Develop a marketing plan demonstrating the value of buying locally to public and private entities, as well as consumers.

RECOMMENDATION 12: CONSUMERS

Increase consumer base and market access locally, interstate and internationally for New Mexico agriculture products.

¹² There are generally four different categories of inspection for meat processors. These programs range in the amount of regulation with which they must comply, and in turn, determine where and how the meat can be sold. Meat processing facilities that comply with federal USDA inspection guidelines produce meat that may be sold over state lines or internationally. Facilities that conduct state inspection must be "at least equal to" federal inspection in terms of regulatory rigor, however meat processed in these facilities may only be sold within the state. While some data exists, additional information is needed regarding options for New Mexico's meat packing facilities. (Cooperative Extension System)

¹³ Albuquerque, Santa Fe and Las Lunas School Systems have implemented separate bidding processes for local producers so they do not have to compete against national producers who are more able to achieve lowest prices. (Bryan, 2015)

¹⁴ (New Mexico Farmers Marketing Association)

Strategies:

- a. Research consumer purchasing power, demand (potential and real), and barriers to meeting demand.
- b. Identify and develop strategies to compete with producers outside New Mexico.
- c. Develop targeted marketing initiatives that educate consumers on the value of purchasing New Mexico products.
- d. Identify and support programs that assist low-income residents in accessing and purchasing New Mexico food products.
- e. Develop programs that educate consumers about cooperative buying power (i.e., groups pooling their purchasing power to negotiate more favorable pricing on goods and services).¹⁵

RECOMMENDATION 13: FOOD DONATION, REDUCING WASTE AND COMPOST

Manage food surplus through best practices that promote health in all communities, reduce waste, increase recovery, feed animals, and create a nutrient-rich soil product through composting.¹⁶

Strategies:

- a. Build on and expand food donation systems that improve access to food for communities in need, as well as for producers who can repurpose food scrap for livestock or compost.
- b. Research existing and new laws regarding when foods (prepared or raw) can be donated, and educate stakeholders accordingly (i.e., food safety rules, safe practices, shelf-life durations).
- c. Develop a marketing campaign that educates and guides the public on how to reduce, repurpose and recycle food waste.
- d. Support efforts to allow "ugly" produce to be sold at retail and other markets. 17

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¹⁵ (Katz, 2010) A cooperative purchasing model allows a group of buyers with a common interest to pool their buying power in order to negotiate more favorable pricing on goods and services. Cooperatives are set up to aggregate purchasing volume from many different companies and increase the purchasing power from each individual. For example, a member of a cooperative purchasing model can receive lower prices than a nonmember on bulk commodities from companies with whom the cooperative has a contract. The pricing a member receives is based upon the potential spend of an entire membership that may be ordering through that same supplier.

¹⁶ Food recovery refers to the collection of edible food by the poor, or for distribution to the poor and hungry. Food recovery takes several forms: gleaning, perishable food rescue/salvage, non-perishable food collection, and rescue of prepared food.

¹⁷ "Ugly" produce does not look perfect, often has small blemishes or unusual shapes, but is equally nutritious as more commercially viable "pretty" produce.

Agricultural Economic Viability

Overview

Agriculture production and food processing are important parts of New Mexico's economy, accounting for roughly 13 percent of the gross state product. Rural communities especially rely on agriculture as a major contributor to their local economies. The potential of agriculture as a career or employer in many rural areas is not yet fully tapped. Increasing public interest in value-added products also demonstrates possible opportunities for New Mexicans to find financial stability. All businesses face risk. Farmers and ranchers face added

uncertainty because they rarely know the sales price of their products before investing in upfront costs such as equipment, labor or land. Prices for agricultural products are generally beyond the growers' control; government, commercial resellers (i.e., big grocery chains) and other large players hold major influence over pricing. This complex system keeps growers as small players in a very large market, thus making them "price-takers." Growers can get caught in a "price-cost squeeze" that prevents them from charging enough to make a profit.

The roles of government present both benefits and challenges. Agriculturists often rely on government policies and programs to fairly manage key production costs such as land, labor, and supplies so operations can still generate profits. However, when regulations and taxes are not properly vetted for their impact on agriculture, small and midsized farms and ranches are at risk.

VALUE-ADDED PRODUCTS

In agriculture, value-added products are foods or beverages that underwent a physical change through processing (i.e., making peanuts into peanut butter or strawberries into jam).

Participants in the *Resilience in New Mexico Agriculture* regional meetings commented on a growing appreciation for and high degree of pride in valueadded foods made in New Mexico. Popular products include Tucumcari Mountain Cheese or locally produced craft beers and wines.

It is critical that consumers, policymakers and the public understand the unique challenges that farmers and ranchers face. Public opinion based on accurate information is detrimental to the direction of the agricultural economy. To make informed choices supporting the long-term economic well-being of farms and ranches, the public, tribal leaders, media and legislators need thorough data that provides education on New Mexico agriculture's current economic status and contributions.

A WORD ON IMMIGRATION

Issues related to labor and immigration are vital to New Mexico's agricultural economy. Simply put, it is becoming more difficult to attract labor into agricultural sectors. The work is hard, the hours are long, and the pay, while increasing, is not always high. Modern agriculture requires a skilled and consistent labor pool. With New Mexico's location, a foreign labor pool can provide a necessary service to some agricultural operations. Subsequently, the demands of farmers and ranchers for labor is running headlong into increasing pressures related to immigration reform. Task force members agree the state needs to take measures to assure that a

¹⁸ While other competitive industries – such as hotel chains or jewelers – are also considered price-takers, unique economic forces inherent to agriculture make the cost of doing business unpredictable. By comparison, many technology firms are "price-makers" because they hold a monopoly and can set their own pricing.

readily available and legal workforce is available for the agricultural and food processing industry, while also ensuring border security. Farmers and ranchers need a clear, concise and consistently applied set of foreign labor regulations. All efforts should build on and honor existing work.

Recommendations and Strategies

RECOMMENDATION 14: PUBLIC RELATIONS AND ECONOMIC IMPACT

Provide a trusted source of data for accurate financial information on New Mexico's farms and ranches and their contribution to the state. Deploy this information to facilitate informed debate among the public, policymakers, researchers, tribal leaders, and industry representatives regarding the stability of New Mexico farms and ranches and the provision of a safe, affordable and adequate food supply.

Strategies

- a. Create an agricultural information clearinghouse that supports effective messaging strategies and accurate data dissemination to New Mexico consumers. Include information from multiple sources such as universities, government databases, marketing research firms and polling organizations.
- b. Develop and publish a "top ten list" of benefits that agriculture provides New Mexico. The list will reinforce the vital importance of agriculture, build public trust, and reflect agriculture's positive contributions to the state. The annual list should be supported by accurate, credible data and based on public input, including surveys and focus groups. It should be promoted by NMDA, NMSU Cooperative Extension Service, and other relevant organizations.
- c. Invest in multimedia messaging from a third-party group that explores benefits and topics identified in the top ten list. The messaging should present a fair picture of agriculture's contributions, counter misinformation, and encourage positive relationship building amongst all stakeholders impacted by and connected to agriculture.

RECOMMENDATION 15: WORKER'S COMPENSATION AND INSURANCE

Develop information and projects that help farmers and ranchers cost-effectively meet new requirements to provide their employees with worker's compensation insurance.

Strategies

- a. Support and contribute to establishing a self-insurance pool for the agriculture industry. Fund necessary feasibility studies to identify pool options.
- b. Request clarification from the New Mexico Workers' Compensation Administration on the application of workers' compensation regulations to the agriculture industry. Specifically, for the following questions:
 - i. Whether a worker is an employee or an independent contractor?
 - ii. How workers' compensation rules apply to absentee owners, and whether these owners may be held liable in a workers' compensation suit?
 - iii. How to determine which farmer is liable for injuries or exacerbation of old injuries suffered by employees who rotate working on neighboring farms?
 - iv. In case of an injury to subcontracted farmworkers, who is at fault the contractor or landowners?

- v. For how many months would an employer pay for a worker's compensation claim?
- vi. Family members and friends often help out on the farm or ranch, and may or may not be compensated financially. Are the considered employees who must be covered by workers' compensation?
- c. Help producers comply with worker's compensation regulations by providing training on the following:
 - i. Documentation, reporting, process compliance and claim management
 - ii. Staying informed on program changes
 - iii. Managing employees' return to work after an injury

RECOMMENDATION 16: AGRICULTURAL LEASES AND LENDING

Support cost-effective land leasing and lending by helping farmers and ranchers better understand the legal and regulatory issues surrounding these matters.

Strategies

- a. Create a program to provide information on agricultural credit and leases. The program should have an online presence and would address the following:
 - i. Land prices
 - ii. Lessors and lessees (including matching programs)
 - iii. Legal issues
 - iv. Resource directory with contact information for subject matter experts, land-use lawyers, etc.
 - v. Tribal leases including explanations of sovereignty legal issues, federal agency contact information, testimonials from those with tribal lease experiences, and definitions of leasing terms
 - vi. Grants and government programs for young farmers
 - vii. Mentorship programs
 - viii. Variables for leasing on federal lands
 - ix. Current events (including shifts in federal regulations)
- b. Protect current agriculture lending programs, including the Farm Credit system, to ensure farmers and ranchers have affordable, consistent lending options that will allow agriculture to stay viable in New Mexico.
- c. Encourage federal grantors to streamline agricultural grant application and awarding systems. A more user-friendly approach to federal agricultural grants will allow farmers and ranchers to save time and money when applying for funds they need for their operation.

WORKER'S COMP IN NEW MEXICO AGRICULTURE

Due to a recent New Mexico Supreme Court decision, agriculture operations are no longer exempt from maintaining worker's compensation for employees. Some farmers and ranchers may need programs to help manage the new requirements accurately and costeffectively.

- d. Encourage programs that help tribal members establish collateral to qualify for loans. Many tribal farmers and ranchers have difficulty securing agricultural loans because they cannot use tribal lands or equipment located on tribal lands as collateral.
- e. Provide lending institutions clarity regarding their legal and regulatory limits for tribal lending. Often lending institutions lack legal authority to help tribal farmers and ranchers obtain agricultural loans.

RECOMMENDATION 17: TAX REGULATIONS IMPACTING AGRICULTURE

Protect existing tax exemptions for agriculture and enact others that fairly keep food costs low while protecting producers' ability to maintain their businesses.

Strategies

- a. Encourage data collection showing the consequences of proposed changes in tax policy, tax practice and imposed taxes on agriculture.
- b. Support studies and tax analysis assessing whether agriculture is more vulnerable to harm compared to other industries and, if so, potential solutions.
- c. Provide policymakers and the public clear data that demonstrates how existing tax exemptions minimize the cost of food for consumers and protect producers' ability to maintain their businesses.

Conclusion

New Mexico carries an agricultural history that is both unique and integral to its identity. Symbols of this heritage are marked in the land itself through acequias, centuries-old petroglyphs left by Spanish sheepherders, and the ancient and annual harvest of the "three sisters" crops of beans, corn and squash. In the present, many continue to ranch and farm to make a living, feed communities, and sustain a legacy of land stewardship and family bonds.

Agriculture remains both an economic mainstay of rural areas, as well as an investment opportunity for increased state revenue and innovation. However, farming and ranching faces unique challenges in our state. Declining water availability, soil erosion, competing industries and the rising demands of urban communities all require attention and long-term planning. Without action, the knowledge, history and economic contributions of farmers and ranchers could be severely diminished.

As urban populations continue to grow, more of the public has lost touch with the spaces where agriculture thrives. Policymakers and the public may not always recognize the economic and environmental challenges farmers and ranchers face. It is therefore more important than ever to increase education and subsequent action regarding agriculture. Ultimately, it is the hope of all participants in the *Resilience of New Mexico Agriculture* project that readers of this plan will take away an understanding of the impact of farms and ranches on all our lives, and invest in their wellbeing for generations to come.

Appendices

Appendix A: Next Generation of Farmers and Ranchers

BEGINNING FARMER AND RANCHER CENTER MODELS

- 1. The Iowa State University Beginning Farmer Center provides a variety of programs including:
 - An ag link program that links beginning farmers with older farmers desiring to transition their farms to the next generation
 - Conducts succession planning/transition seminars for retiring landowners
 - Provides financial/business planning services for BFRs
 - Targeted research on farm business succession planning
 - Provides educational materials to BFRs/links them with relevant financial/technical assistance programs
- 2. The Virginia Beginning Farmer and Rancher Coalition Program at Virginia Tech seeks to improve opportunities for BFRs and sustain viable agricultural operations and communities in Virginia. Activities include:
 - Partnerships between: cooperative extension, university, non-profit, governmental, and community organizations
 - Providing whole farm planning resources
 - Education programs for BFRs
 - Facilitating a farmer-to-farmer mentorship program

AGRICULTURAL APPRENTICESHIP AND MENTORSHIP PROGRAM MODELS

- 1. The Minnesota PIPELINE Project (Private Investment, Public Education, Labor and Industry Experience Project) was established to develop industry-based, employer-driven, dual-training programs in four, high-growth industry sectors, including agriculture. The Minnesota Department of Labor and Industry (DLI) initially convened Industry Councils to develop occupational competency standards for high-demand occupations in the agriculture sector with the goal of providing guidelines for employers to develop registered apprenticeship programs. The state also provides grants to employers to further develop the training programs based on the relevant industry guidelines.¹⁹
- 2. The Dairy Grazing Apprenticeship is the first accredited apprenticeship for farming in the nation. DGA combines work-based training with related instruction for the federally recognized occupation of "Dairy Grazier" (farmer who uses managed grazing).²⁰
- 3. The University of California Santa Cruz offers the Apprenticeship in Ecological Horticulture, which provides training in the concepts and practices of organic gardening and small-scale farming. This full-time program is held at the Center's 30-acre CASFS/UCSC Farm and 3-acre Alan Chadwick Garden on the UCSC campus. The Apprenticeship training program offers 300 hours of classroom instruction and 700 hours of in-field training

¹⁹ (Minnesota Department of Labor and Industry, n.d.)

²⁰ (Dairy Grazing Association, n.d.)

and hands-on experience in the greenhouses, gardens, orchards, and fields. 21

AGRICULTURAL INCUBATOR PROGRAM MODELS

- 1. Desert Forge Foundation provides training and meaningful employment to fellow veterans on three working farms in the Atrisco area of Albuquerque, New Mexico. The program teaches veterans the fundamentals of agriculture and business development.²²
- 2. Cultivating Bernalillo County 'Grow the Growers' Farm Training and Business Incubator Program is funded by a combination of county mill-levy monies and private grants. The program is a workforce development, jobskills training, and business incubation initiative to support and develop economically-viable, professional food growers in Bernalillo County. The program is a new initiative that will integrate the existing land and water resources of Bernalillo County's agricultural open space properties with the agricultural education and research expertise of the NMSU-Bernalillo County Cooperative Extension Service. Extension leads programmatic efforts to educate, train, incubate and accelerate the success of next-generation farmers in Bernalillo County. The County provides financial (via a 15-year mill levy) and logistical support to ensure program viability and additional public and private partners have assisted the County and the Extension Service with planning and implementation of the program during its pilot (2017) year.²³

AGRICULTURAL TOOLKIT AND TRAINING PROGRAM MODELS

- 1. New York State's Agricultural and Farmland Protection Program, which provides planning and implementation grants to counties and municipalities to develop local agriculture viability strategies.²⁴
- 2. King County, Washington's Agriculture Program brings together the county's efforts to preserve prime agricultural soils with efforts to protect water resources and ensure the continuing vitality of agriculture in the region. The program provides financial support to enhance market access for producers and install conservation practices, connects beginning farmers with landowners, and coordinate farmland protection programs. Programs are implemented through a county-led Agriculture Commission.²⁵
- 3. Hawaii County also implemented a county based Agriculture Program providing facilitative leadership to both the public and private sectors to support the sustainable development of agriculture, forestry, aquaculture, and other natural resources. Activities include financial support and coordination of agricultural research, education, and marketing programs; data collection, compilation and dissemination to County policymakers and other interested parties; management of collaborative research and development projects; advocacy for local farmers and commodity groups at State and Federal levels.²⁶
- 4. The New Mexico Energy Minerals and Natural Resources Department, Forestry Division worked with a group of stakeholders (the NM Community Forest Planning Group) to develop a community forest toolkit to help

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²¹ (University of Santa Cruz, 2017)

²² (Desert Forge Foundation, n.d.)

²³ (Bernalillo County, n.d.)

²⁴ (New York State, n.d.)

²⁵ (King County, n.d.)

²⁶ (County of Hawaii, 2012)

local leaders "rethink the importance of trees and how to maximize tree benefits to make your community better." The guide provides an overview of ecosystem/public benefits of urban forests and action items to promote urban forest development.²⁷

AGRICULTURAL DISTRICT PROGRAMS

Agricultural District Programs allow owners of farm and ranch land to form special areas where commercial agriculture is encouraged and protected; programs are authorized by state law but often implemented at the local level. For example, local governments may be required to review and approve landowner applications. Enrollment is voluntary and participating districts receive a package of benefits, which varies state to state. Agricultural district programs benefit examples include:

- 1. Limiting non-farm development
- 2. Limiting use of eminent domain/annexation
- 3. Financial assistance for soil/water conservation
- 4. Property tax credits
- 5. Required mediations of land use disputes
- 6. Tax incentives for investors, etc.²⁸

One example of an agricultural district program is the Wisconsin Agricultural Enterprise Area Program. Under this program, local communities voluntarily pursue a designation of an "agricultural enterprise area" by submitting petition to the state department of ag. Once enrolled, eligible landowners in that AEA may sign a farmland preservation agreement with the state and claim a farmland preservation tax credit and triggers additional protections and assistance with economic development.²⁹

STATE SUCCESSION AND PLANNING SERVICES

Options for succession and planning services include:

- 1. A state succession planning program such as the Vermont Farm and Forest Viability Program.³⁰
- 2. A succession planning program led through Cooperative Extension such as Purdue University's Extension Succession Planning Team.³¹
- 3. A land trust-led succession programing such as programs highlighted by the Land Trust Alliance. 32

²⁷ (New Mexico Energy Minerals and Natural Resources Division)

²⁸ (Farmland Information Center, 2016)

²⁹ (State of Wisconsin)

³⁰ (Vermont Housing and Conservation Board, 2014)

^{31 (}Purdue Extension, 2016)

³² (Hamilton, 2013)

AGGIE BONDS

Oregon has developed a one page summary about the benefits of an aggie bond program- including the support it would provide small and beginning farmers in the acquisition of agricultural land, agricultural improvements, and depreciable agricultural property, including livestock, seed and equipment.³³ Iowa and Oregon both have authorizing statutes for aggie bonds. Common characteristics of these aggie bond programs include:

- 1. The Federal Tax Code, which allows privately-owned public purpose projects to take advantage of the taxexempt financing through the sale of Private Activity Bonds (PAB). The IRS allows a portion of these bonds to be used to help beginning farmers purchase land and equipment (25%).
- 2. The state sells bonds to a private lender in the amount of the lender's loan to a new or beginning farmer. The interest on the bond is tax-exempt, thus offsetting the lower interest rate charged on the land. The lender avoids paying income taxes on interest the lender receives from the borrower.
- 3. States do not provide a repayment guarantee; the lender assumes all credit risks, and the borrower is solely responsible for repaying the bond. Most entities that are in the business of making agricultural loans are eligible.³⁴

In New Mexico, legislation would direct the state's Department of Finance and Administration (which manages the PAB program) to set-aside a portion of the state's PAB allocation (\$302,825,000 for 2016) for beginning/first-time farmers. Funding currently goes to housing or "other."

AGRICULTURE BUSINESS AND FINANCIAL PLANNING SERVICES

Agricultural business and financial planning services commonly follow either a university or state-led model. Below are examples of each model.

University-Led Model: The Beginning Farmer Center at Iowa State University provides an eight-week Growing Iowa Farmers program to help farmers develop their business strategy for their farming operation. Colorado State University's Colorado Building Farmers program offers similar business planning services.³⁵

State-Led Model: Maine Farms for the Future Program is a competitive grant program that provides selected farms with business planning assistance and investment support; farmers can research ideas for change on their farm and work with a certified business counselor to write an investment grade business plan.³⁶

AGRICULTURAL COMPETITIVE SMALL GRANTS PROGRAMS

Texas Young Farmer Grant provides financial assistance in the form of dollar-to-dollar matching grant funds to young agricultural producers that are engaged or will be engaged in creating or expanding an agricultural business in Texas.³⁷

³⁴ (Iowa State Legislature) (Oregon Legislative Assembly, 2013)

³⁷ (Texas Department of Agriculture, 2017)

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³³ (Friends of Family Farmers)

³⁵ (Iowa State University Extension and Outreach) (Colorado State University Extension, 2017)

³⁶ (Maine.gov, 2013)

The Matching Enterprise Grants for Agriculture Program assists farmers who have been in business for at least one year, but no more than five, acquire equipment and other non-land assets or make infrastructure improvements. Matching funds of up to \$10,000 are available for farm improvement strategies after individual business reviews provided by the department. Business assistance is an additional program benefit.³⁸

STUDENT LOAN REPAYMENT PROGRAM

Several states including New York offer student loan repayment programs for beginning farmers and ranchers who agree to operate a farm/ranch in their state for a given time period. Wisconsin also recently introduced legislation to establish such a program.³⁹

The Montana House of Representatives passed a bill establishing the Montana Farmer Loan Repayment Assistance Program. The program will repay up to 50% of the total amount of outstanding education loans for recent college graduates that commit to operate a Montana farm for at least five years. The program would give preference to those with the greatest financial need, who own or are working towards ownership, members of groups that are underrepresented in farming, and those who operate farms that employ sustainable best practices for farming as identified by USDA.⁴⁰

New Mexico Department of Higher Education currently provides a number of loan repayment/service based repayment programs for health professionals, teachers or lawyers. A New Mexico program could be designed to encourage recent graduates to begin full-time farm/ranch operations in the state, and could encourage people to move to rural areas.

^{38 (}Commonwealth of Massachussetts , 2017)

³⁹ (New York State, n.d.) (Wisonsin State Legislature, 2016)

⁴⁰ (Montana Legislature, 2017)

Appendix B: Task Force Members

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