



Northern New Mexico Regional Chile Processing Plant

FINAL Report

**Submitted to the
State of New Mexico Economic Development Department**

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EXECUTIVE SUMMARY

The following report responds to the requirements of Leap Partners' contract with the Economic Development Department (EDD) of the State of New Mexico (NM), to assess the feasibility of a chile processing plant in Northern New Mexico (NNM). The report presents data and analysis gathered from industry stakeholders, chile growing communities, and research organizations; reviews chile market trends locally, nationally, and globally that affect the ability of NNM to be competitive; and presents findings, recommendations and next steps.

The competitive challenges facing the New Mexico chile industry—land, water, infrastructure, and labor issues—are not addressed in detail in this report. In accordance with the contract, we focused on market opportunity, which is a key driver of investment in the sector and efforts to address the underlying competitive issues.

The major finding of the report is that, *at this time, a chile processing plant in NNM is not feasible*, based on the following factors:

- At current dry chile prices of about 70 cents a pound, NNM *fresh* chiles, at about \$1 a pound, are not competitive, and, based on price alone, a chile plant is not feasible.
- NNM chile production represents about 1% of the state's production and has limited possibility for expansion without significant infrastructure investment. Based on the number of farmers and volume of production available, a processing plant is not feasible.

Other findings include:

- The potential to increase utilization of processing capacity for other agricultural products is limited by the fact that most other agricultural products in NNM are harvested during the same two months of the year as chile, and that, as their markets are generally fresh local, they do not necessarily require drying or freezing.
- An opportunity exists for New Mexico chiles to supply higher value specialty markets, particularly in the fresh organic market.
- The potential economic and social benefits of a chile processing plant would be limited, but there may be opportunity to involve youth in marketing aspects of the chile business for higher value markets.

In order to create economic opportunity in the chile industry, which might, in the future, justify a chile processing plant, a broader competitiveness approach is recommended, which addresses the ability of chile producers and processors statewide to access and successfully compete in higher value markets, rather than “racing to the bottom” on price in the current bulk market:

1. Focus on the competitiveness of the state chile industry as a whole by linking on-going efforts in the south and north under a broader competitiveness strategy.
2. Compete on the basis of quality not price, by focusing on higher value specialty markets.

3. Focus initially on the organic market where international competition is not yet present and where there is a window of opportunity to differentiate NM product in this and other specialty market niches.
4. Create a unique NM chile brand that signifies quality, safety and the unique characteristics of being produced in NM and that fetches a premium for producers and processors.
5. Investigate alternatives for small scale local dehydration equipment, in the context of the preceding recommendations regarding market development.
6. Conduct research to identify niche specialty markets for crops that are grown in the north, namely alfalfa, or alternative crops that can be grown competitively to meet specialty market demand.

In response to these recommendations, Leap Partners proposes a pilot project to leverage existing demand from local and regional supermarket chains for fresh organic chiles as well as regional tastes for roasted fresh chiles, in order to develop a niche within the fresh organic market, which can later be expanded to dry and frozen packaged products. Within this market, it may be possible to create a niche market for the later season, higher priced chiles produced in NNM through further differentiation of the northern chile product based on the unique cultural and geographic factors of northern chile production. Differentiation and recognition for NM quality that is achieved within the organic market can then be leveraged in other niche markets and value chains.

The objective is to define New Mexico chile as the “chile of choice”, to gain recognition and premiums, much like “Maine Lobster” and “Egyptian Cotton,” that will open up broader market opportunities. The fresh organic market currently offers the best opportunity to establish such a brand, but the window is time limited as the market rapidly becomes more and more price competitive overtime. Consequently, the brand effort is aimed at leveraging existing opportunity to create a differentiated image that can capture new market trends, such as the rapidly emerging consumer demand for product that is produced by small farmers and that can be identified in terms of origin. A successful pilot will create a viable model for small or medium sized farmers to achieve the standards associated with the brand and to sell into food system value chains that recognize the cultural, social and environmental values that the brand represents, rather than relying on limited local markets and price competitive commodity markets.

The proposed pilot will have the following estimated tangible results in 2007:

- Double the length of the chile season from three weeks in 2006 to six weeks in 2007
- Increase ten-fold the quantity of New Mexico organic chiles sold at higher prices from 25,000 in 2006 to 250,000 in 2007
- Gain and sustain market recognition for a New Mexico chile quality brand that captures premiums for New Mexico chile producers and processors.

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1.0 PURPOSE

In accordance with Leap's contract with the New Mexico Economic Development Department (EDD), this report addresses the following tasks:

1. Establish whether there is a market demand for processed chile from Northern New Mexico, and therefore, a need for a chile processing facility in Northern New Mexico.
 - a. Determine whether there is an existing or potential market demand for other agricultural products that could utilize the processing facility.
2. Identify farmers in the region that could supply harvested chile and other agricultural products to the processing facility.
 - a. Determine how actual and potential local chile supplies compare with the analyzed market demand.
 - b. If supplies are sufficient to support a processing facility, identify the economic and other benefits of constructing a processing plant in Northern New Mexico.

The following report presents a summary of data gathered to date and findings that address the questions listed above, recommendations for future activities based on those findings, and a proposed implementation timeline for recommended activities.

2.0 ACTIVITY TO DATE

2.1 Objectives

The objective of the initial phase of work, from November 15 to January 12, was to establish the feasibility of constructing a chile processing plant in Northern New Mexico, and, based on the results, to make recommendations going forward. A second phase was planned to develop a business plan for a proposed chile processing facility, if it was found feasible in the first phase. As the plant was not found to be feasible, the second phase was not implemented. Northern New Mexico (NNM) in this report is understood to refer to Santa Fe and Rio Arriba counties.

2.2 Assumptions

Much of the data necessary for assessing the feasibility of a chile processing plant in NNM is available through existing research or databases. The focus of this effort, therefore, was to maximize cost effectiveness and avoid duplication by reviewing existing sources of information and augmenting them with updated data, filling gaps, and providing the analysis necessary to make a responsible and objective recommendation regarding feasibility.

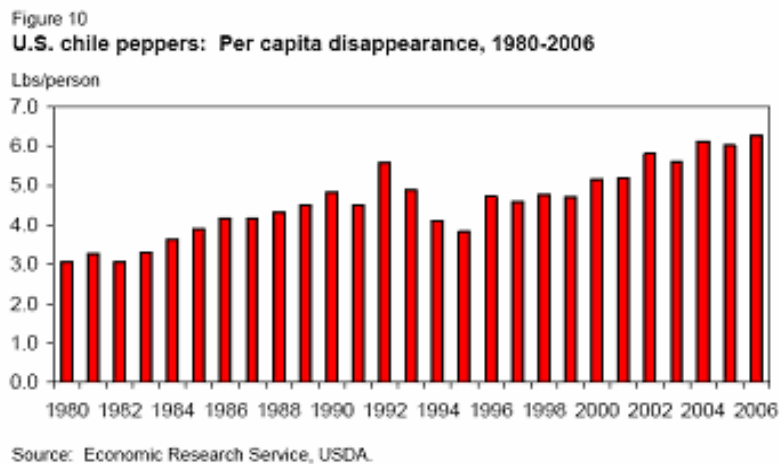
2.3 Methodology

Data gathering efforts comprised a combination of secondary and primary research, based on key participant interviews, including:

- Review of secondary research and reporting on the chile industry in New Mexico, nationally and internationally, including reports published by the Chile Task Force (a list of sources consulted is provided in Annex A).
- Examination of statistical data from the New Mexico Agricultural Statistics Service and USDA’s Agricultural Statistics Service (data tables are provided in Annex B)
- A survey of New Mexico processors (questionnaire provided in Annex C). Three processors agreed to be interviewed; however, as has been the case with chile related research in the past, the team encountered resistance on the part of processors to participate or to provide proprietary or competitive information that might have informed the assessment.
- A survey of NNM producers (questionnaire provided in Annex C). Seven farmers were interviewed.
- A survey of NNM communities to identify expectations and priorities for the chile industry and for NNM rural economic development (questionnaire provided in Annex C).

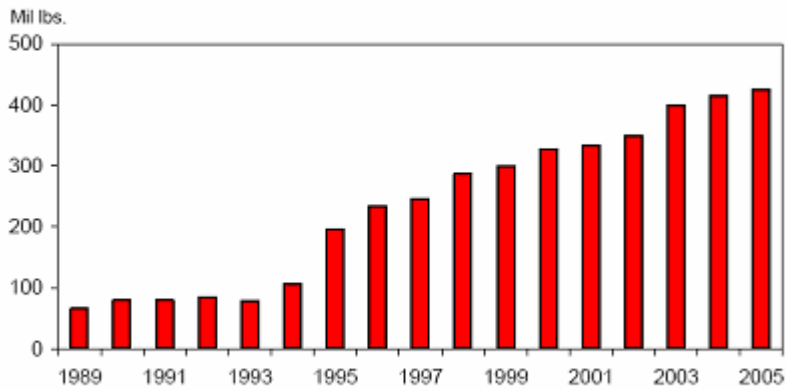
2.4 Background and Overview

In the last ten years, demand for chile in the United States has grown 38%, due to a variety of factors, including a rising immigrant population and new applications for chile products. The chart below shows a doubling of per capita consumption (“disappearance”) of chile in pounds per person from 1980 to 2006.



Imports of chile have followed increasing market demand, as shown in the chart below:

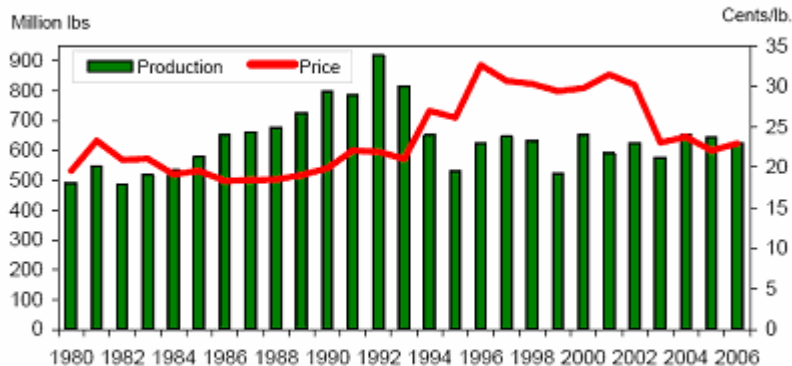
Figure 13
Fresh-market chile peppers: U.S. import volume, 1989-2005



Source: Bureau of the Census, USDC.

As foreign competition and imports began to increase in the mid 1990s, prices initially rose, but began to fall, along with production, as demonstrated in the chart below (note that after 2000, prices were no longer based on New Mexico prices).

Figure 12
U.S. chile peppers: Production and average grower price, 1990-2005 1/



1/ Prices not adjusted for inflation. Those prior to 2000 are based on New Mexico prices.
 Source: ERS estimates based on available State data and NASS estimates.

As the largest producer of chiles in the United States,¹ the performance of the New Mexico chile industry is consistent with the above trends in the national market. Based on New Mexico State Agricultural Statistics data, which provides chile data starting in 1986 (data tables are provided in Annex C):

- *Total acreage harvested shows a steady decline:* Total harvested acres of chile have fallen by 27% from 1986 to 2005 and by 53% since its high point in 1992 to 2005. In 2005, a total of 16,200 acres were harvested, compared to 34,500 in 1992.

¹ New Mexico produces 58% of US chile production and has 50% of total US acreage under chile production.

- *Productivity has improved, based on yields per acre, but seems to be leveling off.* Yields per acre have increased two and half times from 1986 to 2005, showing relatively steady improvement since 2001, but fell by 20% from 2004 to 2005 due to a severe drought that year. The average yield from 2001 to 2005 was about 5.7.
- *Total production (dry) has been flat on average in the last five years.* While productivity has improved and production has increased one and a half times since 1986, production increased only slightly (10%) in the last five years, averaging about 87,000 tons, with production in 2005 at 88,760.
- *Average state price per ton (dry) has dropped dramatically:* Prices have fallen by 49% since 1986 and by 58% since the high point in 1991. Current bulk prices are about 10-15 cents a pound fresh, or about 70 cents a pound dry.
- *Total value of dry production has fallen, due to lower production and lower prices.* From a high of \$67.4 million in 1992, total value has fallen by 29% to \$47.8 million in 2005.

In New Mexico, the chile industry contributes about 5,300 jobs and about \$400 million (production and processing) to state Gross Domestic Product (or about .6% of GDP), with 86% of state chile production coming from Dona Ana, Hidalgo and Luna counties (with over half from Luna alone).² Gaps in NM agricultural data, changes over time in how data was reported and gathered, and the fact that NNM production was grouped with other, smaller chile producing areas, make it difficult to accurately estimate NNM's contribution to the industry; however, it is possible to make some extrapolations. From 1986 until 1998, Rio Arriba's harvested acreage was reported separately, and consistently represented less than 1% of total state harvested acreage, averaging about 228 harvested acres over that period (with the highest acreage reported in 1996 of 350).³ Santa Fe County was never reported separately, and was grouped with "Other Counties". No production data was ever reported separately for either county. In 1998, Rio Arriba was grouped with "Other Counties," after which it is difficult to disaggregate the data for either county. For example, in the 2003 reported data, "Other Counties" included 12 counties contributing 8% to state production. Assuming that yields are lower in the north, combined with low acreage, we estimate that the NNM counties together contribute more or less 1% of total state production.

2.5 Findings and Conclusions

2.5.1 Establish whether there is a market demand for processed chile from Northern New Mexico, and therefore, a need for a chile processing facility in Northern New Mexico.

Finding: At current dry chile prices of about 70 cents a pound, NNM *fresh* chiles, at about \$1 a pound, are not competitive, and, based on price alone, a chile plant is not feasible.

² Estimate presented by Stephanie Walker, Extension Vegetable Specialist, New Mexico State University at the 2006 18th International Pepper Conference.

³ New Mexico Agricultural Statistics

Discussion: Market demand for chile exists, as discussed above, but the question that this study addresses is “demand at what price?” The chile commodity market is price driven; therefore, competitiveness is driven by cost and productivity, which determine the ability of producers and processors to capture demand at any given price. The NM state chile industry as a whole is losing on both cost and productivity; the Northern New Mexico chile industry faces even greater challenges. Critical competitive challenges facing the state industry as a whole include:

- *Availability and cost of labor.* Manual labor represents about one third of the value of production; in other words, if the price received is 75 cents, 25 cents covers picking and hauling.
- *Availability and cost of raw materials.* Processors are increasingly sourcing raw materials from overseas due to low production and high prices locally.
- *Disease and drought that reduce yield.*
- *Foreign competition* that continues to put downward pressure on bulk prices.

These challenges have resulted in the closure of at least three NM chile plants in the past year.⁴ Current plants are operating at about 70% capacity.⁵ Growers are also dropping out. In order to survive, currently operating plants increasingly import raw materials from outside New Mexico and the United States. Two of the processors interviewed indicated that they import 50% and 70%, respectively, of their raw material from outside New Mexico (Texas and Arizona) and the US (Peru and India). One stated that it was sometimes cheaper to buy dried raw materials from Peru at 50 cents f.o.b.⁶ to California, and pay the additional transportation costs to truck them into New Mexico from the port in California, than to buy locally.

NNM faces additional challenges that hamper its ability to compete in the commodity market:

- *Shorter and later harvest season* (two months, starting after Labor Day when the standard season ends).
- *Lower yields and productivity*
- *Limited irrigated acreage available* and under production.
- *State of water infrastructure.*

Each of these challenges increases costs and lowers productivity for NNM. In fact, the further north one goes in New Mexico, the higher the price of chiles rises, from around 10-15 cents/lb for fresh and about 70 cents/lb for dried in the south, up to \$1/lb for fresh chiles in the north.

⁴ Carsolias operated by Jerry Zacheck (near Deming), which started up a brand new red chile dehydration plant three years ago; one in Garfield operated by David Holguin; and the Border Foods plant in Las Cruces, which will close this year.

⁵ Estimate provided by a processor interviewed for this study.

⁶ “Freight on board”, means that transportation costs up to the destination are included in the price quote.

Therefore, regardless of demand, based on price alone, NNM could not compete in the chile commodity market and a processing plant would not be justified.

Chile Prices in Cents per Pound


| | South Bulk | South Organic | North Organic |
|-----------------|------------|---------------|---------------|
| Fresh delivered | 10-15 | 20-30 | \$1 |
| Dry delivered | 70 | \$1.50 | |

Note: The price ratio of dried to fresh is about 7:1; the price ratio of commercial to organic is about 1:2.

2.5.2 Determine whether there is an existing or potential market demand for other agricultural products that could utilize the processing facility.

The potential to increase utilization of processing capacity for other agricultural products is limited by the fact that most other agricultural products in NNM are harvested during the same two months of the year as chile, and that, as their markets are generally fresh local, they do not necessarily require drying or freezing.

An alternative approach to building a chile processing plant, would be to investigate the potential to maximize the value of existing key crops by supplying high value niche markets, especially crops that are rotated with chile. For example, the largest agricultural product in New Mexico is alfalfa. Alfalfa is a part of the rotation of nearly every irrigated farm in the state. Research into possible value added opportunities related to alfalfa production may help identify other venues that may enhance profitability of NM farms. One possibility would be the extraction of chlorophyll to create a high value, exportable commodity used as food coloring and in dietary supplements. This, and any other high technology products, however, would require study to determine feasibility and investment in research and development in food technology.

| Rio Arriba County | | Crops 2004 | Acres | Yield | Production | Unit | Rank |
|---|-----------|-------------------------|--------|---------------|------------|------|------|
|  | | Apples | — | — | 1,500,000 | Lbs. | 1 |
| | | Hay, All | 12,000 | 1.07 | 12,800 | Tons | 20 |
| | | Hay, Alfalfa | 8,000 | 1.10 | 8,800 | Tons | 20 |
| | | Livestock - Jan 1, 2005 | | No. of Head | | Rank | |
| | | Cattle & Calves | | 20,000 | | 21 | |
| | | Sheep & Lambs | | 3,000 | | 9 | |
| Census 2002 | | Cash Receipts 2004 | | 1,000 Dollars | | Rank | |
| Number of Farms | 988 | Crops | | 2,204 | | 22 | |
| Land in Farms | 1,431,119 | Livestock | | 12,338 | | 25 | |

Source: New Mexico Census

Another alternative is to focus on high value specialty markets for products not currently commercially produced in NNM (e.g., herbal, medicinal, flowers). This would require a competitive assessment of strengths and weaknesses of the NNM agriculture sector to identify

what products might be competitively produced there and what markets they might be able to capture.

2.5.3 Identify farmers in the region that could supply harvested chile and other agricultural products to the processing facility.

Findings: NNM chile production represents about 1% of total state production, and has limited capacity to expand without significant infrastructure investment. Based on the number of farmers and volume of supplies available, a processing plant would not be feasible.

Discussion: NNM's capacity for a supply response to existing demand is limited by:

- *Limited number of farmers producing chiles in NNM.* The Cooperative Extension Agent for Santa Fe (Pat Torres) reported that the largest and only producer with capacity to sell wholesale in Santa Fe County produces chile on 10 acres. The Cooperative Extension Agent for Rio Arriba (Tony Valdez) reported that there are about 30 farmers in Rio Arriba who grow on a large enough scale to be considered commercial. Another indication is the number of small farmers seeking crop insurance for chile. According to the Farm Service Agency, of 50 producers in Santa Fe County participating in the Non-insured Assistance Program (NAP), which provides insurance for crop disasters for small producers, only one has requested coverage for chile crops. Of 200 producers participating in the program in Rio Arriba, none has requested coverage for chile crops.
- *Limited number of acres under chile production.* The Cooperative Extension Agent for Santa Fe (Pat Torres) estimates that out of 18,000 irrigated acres in Santa Fe County, about 300 are dedicated to chile. The Cooperative Extension Agent for Rio Arriba (Tony Valdez) reported that out of a total of 371,000 irrigated acres, 300 acres are dedicated to chile (or 1% of total irrigated land in the county). By these estimates, total chile acreage in NNM is roughly 600 acres.
- *Uncertain access to water and water rights.*

Under the circumstances, it would be more cost effective to address the processing needs of northern producers by co-packing with existing processors. And, given the food safety and capital requirements of processing, it is likely more important to support existing capacity rather than to duplicate it.

2.5.4 Determine how actual and potential local chile supplies compare with the analyzed market demand.

Again, chile production in NNM probably represents today about 1% of total state production and has limited capacity to expand, and current production is not competitive at current market prices. Thus, competing on price is a losing proposition for NNM because there is little that can be done to reduce costs or increase productivity. The only way for NNM chiles to be competitive is to find markets for what they can produce—fresh chiles at \$1/lb—which implies a

higher value specialty market. The current market opportunity that offers this potential is the organic market.

According to the National Organic Standards Board (www.ams.usda.gov/nosb/), “Organic food is produced by farmers who emphasize the use of renewable resources and the conservation of soil and water to enhance environmental quality for future generations. Organic meat, poultry, eggs, and dairy products come from animals that are given no antibiotics or growth hormones. Organic food is produced without using most conventional pesticides; fertilizers made with synthetic ingredients or sewage sludge; bioengineering; or ionizing radiation. Before a product can be labeled "organic," a Government-approved certifier inspects the farm where the food is grown to make sure the farmer is following all the rules necessary to meet USDA organic standards. Companies that handle or process organic food before it gets to your local supermarket or restaurant must be certified, too. Organic food differs from conventionally produced food in the way it is grown, handled, and processed...*Note that an organic certification does not mean that the food is safe or nutritionally superior.*” (Emphasis added)

According to a US Department of Agriculture (USDA) report, *Recent Growth Patterns in the U.S. Organic Foods Market (2002)*,⁷ sales of organic food have grown at a rate of 20% annually since 1990 and are sold in 73% of all conventional grocery stores; fresh produce is the top-selling organic category, followed by nondairy beverages, breads and grains, packaged foods (frozen and dried prepared foods, baby food, soups, and desserts), and dairy products. The US organic market is projected to grow to \$30 billion by 2008.⁸

Based on interviews of NNM farmers, those who had achieved organic certification (which, of course, entails additional costs of production) were the only ones making any money on chiles. As mentioned above, the price ratio of commercial bulk to organic is about 1:2. Thus, compared to about 30 cents/lb for commercial bulk fresh chiles, organic fresh chiles fetch about 60 cents/lb; compared to commercial bulk dried chiles at 70 cents/pound, organic dried fetch \$1.50 per pound. In effect, organic certification doubles the price that chiles can fetch, for both southern and northern producers. According to the New Mexico Organic Commodity Commission, there are 118 certified organic farmers statewide, producing on 73,500 acres, of which 50% is irrigated. About 30 acres of the 73,500 is estimated to be for chile production.

At the same time, interviews with key organic products buyers, such as Whole Foods, Raley's and others, indicated that an unmet demand for organic fresh produce exists in these distribution chains and that they are actively looking for new products to promote and sell.

2.5.5 If supplies are sufficient to support a processing facility, identify the economic and other benefits of constructing a processing plant in Northern New Mexico.

Assuming that a processing plant was feasible, the economic benefits that might accrue would be limited:

⁷ *Recent Growth Patterns in the U.S. Organic Foods Market*, Carolyn Dimitri and Catherine Greene, Agriculture Information Bulletin No. (AIB777) 42 pp, September 2002

⁸ Presentation by Sebastian Belle, National Organics Standards Board, at the Global Shrimp Outlook Conference in Miami, FL, November 2006.

- The short processing season of 2 months would create only a few short term processing jobs each year.
- Even if it were possible to expand acreage under production, farm level jobs would likely be lost since producers would need to turn to mechanized harvesting to reduce labor costs in order to be competitive.

In interviews with communities, local leaders expressed the following views regarding the social value of chile production:

- Chiles were the basis for family, community and generational cohesiveness
- Chile farming can provide a viable livelihood alternative to youth, which in turn serves to preserve the local chile farming culture for the future.

It is not clear that either of these issues would be addressed with a new processing plant. Regarding the first, the traditional family-based approach simply cannot produce enough volume to make a plant viable. Regarding the second, promising work has been done by the Youth Corps in Chimayo, demonstrating that interest and potential exist to involve youth in sustaining the local chile culture, but a processing plant would not generate enough opportunity to take advantage of that potential. Opportunities for youth involvement, however, can be created in other areas related to the chile industry, including marketing and business development, which might augment current efforts to address local social issues surrounding youth.

Nevertheless, the cultural and social values surrounding the local chile culture—soil, indigenous seed, traditional techniques (circular planting, hand picking), water, family, and Spanish heritage—provide the basis for differentiating local chile for specialty markets. Regardless, traditional techniques would still need to be augmented with more modern technology, especially in water and irrigation in order to maximize water utilization and expand production areas.

Lastly, while community leaders and members expressed a consistent commitment to sustaining land-based activities and the cultural values associated with agriculture and chile, it should be noted that in both formal and informal community discussions, there was no clear consensus that a processing plant would necessarily provide the solution. Leaders and community members expressed some realism about the prospects of a processing plant and were open to ideas for achieving their cultural, social and economic objectives.

2.6 Recommendations

1. *Focus on the competitiveness of the state chile industry as a whole by linking on-going efforts in the south and north under a broader competitiveness strategy.* The fate of the NNM chile industry is tied to the fate of the state chile industry as a whole. If the south cannot compete, the north certainly cannot. The north simply does not have the volume and scale to have any impact on the market on its own. The only way to create opportunity for chile production in the north is to leverage the volume and scale in the south to capture new markets in which the north can participate at their prices.

2. *Compete on the basis of quality not price, by focusing on higher value specialty markets.* To do so, New Mexico and NNM producers need to understand the quality standards of specialty markets and be linked into their respective “value chains,” which will provide more sustainable opportunity than selling to the limited local market or the commodity market. To participate in a value chain, producers need to have more information about end consumer preferences (access to or capacity to conduct research) and must cooperate more closely with other growers and other members of the value chain, from input suppliers, to processors, distributors, and buyers to research institutions and food safety regulators.

3. *Focus initially on the organic market where international competition is not yet present and where a window of opportunity exists to differentiate NM product.* The highest demand within the organic market is for fresh produce. New Mexico organic chile producers can capitalize on existing demand for fresh organic chiles as well as regional tastes for roasted fresh chiles to develop a niche within the organic market, which can later be expanded to dry and frozen packaged products. Within this market, it may be possible to create a niche market for the later season, higher priced chiles produced in NNM through further differentiation of the northern chile product based on the unique cultural and geographic factors of northern chile production (as outlined above). Differentiation and recognition for New Mexico quality that is achieved within the organic market can then be leveraged in other niche markets and value chains.

4. *Create a unique brand that signifies quality, safety and the unique characteristics of being produced in New Mexico and fetches a premium for producers.* The objective is to define New Mexico chile as the “chile of choice”, capitalizing on the current opportunity in the fresh organic market to gain recognition and premiums, much like “Maine Lobster” and “Egyptian Cotton”, based on verifiable and measurable characteristics, including: organic certified (environmentally sustainable), safe (HACCP certified, lab tested), healthy (scientifically proven benefits of chile consumption). Within the brand, NNM production could be further differentiated by “credence factors”,⁹ such as the cultural and social production characteristics of NNM (e.g., local production, small family farms, the Chimayo story) and by defining associated flavor profiles (including heat). The identity of the product based on these characteristics, which is the basis of the premium, would be preserved through out the value chain, from “producer to plate” with traceability systems.

The brand would be promoted based on the experiential qualities of eating chiles (much like wine, coffee and cigars) and leverage recognized elements of New Mexico culture (e.g., “enchantment”) and New Mexico chile culture (e.g., “red, green, or Christmas?”). It also has the potential to build on the “equity” of New Mexico’s image as a state creating competitiveness in other industries such as film, high technology and renewable energy.

The assumption underlying this proposed approach is that, with current demand for organic fresh product, it may be possible to extend the standard season and create nuanced recognition of the NNM flavor profiles so that the late season NNM product can capture a premium. Nevertheless,

⁹ Factors that are not readily discernible to consumers and must be documented and independently verified, e.g., family farm produced.

both southern and northern producers will benefit from differentiating in this market. In fact, as discussed above, the volume and scale of southern production will be necessary to establish the brand and niche. Lastly, this approach involves activities that offer potential for youth involvement, especially in marketing and information technologies.

Most of the elements necessary to implement such an effort are in place, including substantial buy-in from the private sector, but need to be brought together in a cohesive strategy and action plan with industry stakeholders. Moreover, many of these concepts already have been explored by the Chile Task Force, whose members are now represented through the New Mexico Chile Association (NMCA).

5. *Investigate alternatives for small scale local dehydration equipment, in the context of the above market development effort.* Our review of the potential for a chile processing plant in NNM has been heavily influenced by issues around the scale at which processing plants must operate and the volume of inputs that must be available in order to be competitive in the bulk market. Given the demand for and ease of shipment of dehydrated chile, the possibility of shipping dehydrated chile to distant markets does offer potential to add value and support NNM chile production, but only in the context of developing niche specialty markets as discussed in the preceding recommendations. While a large scale commodity based processing plant is not feasible for NNM, it is worth investigating the question of whether smaller scale chile dehydrating capacity that is appropriate to the production volumes of NNM would stimulate chile production and marketing to meet specialty market demand. The possibilities include on-farm dehydrators, possibly incorporating solar technology, or community-owned facilities, possibly mobile dehydrators that travel from farm to farm. *If* there was a way to carry out processing activities in the North in a cost effective manner, the potential benefits might include:

- Control in the hands of the producers and/or community;
- Experiential component of demand, by which direct market customers can “participate in” or “experience” another phase of the production process;
- Local employment in processing, packing, and marketing;
- Better control of throughput and thus more is learned by primary producers about the needs of processors;
- Lower transportation costs, easier access to additional work associated with packaging and marketing; and
- Opportunity for small-scale manufacturers to “produce” or “manufacture” the facilities.

Potential weaknesses of the approach include:

- Higher entry costs per unit of production capacity;
- Lower efficiency even at peak production;
- Maintenance and access issues possible depending on ownership structure;
- Extended idle period with attendant possibility of decay of equipment through disuse and neglect; and
- Market access for processed product at competitive price points remains a potential challenge in the absence of targeted market development efforts.

6. *Conduct research to identify niche specialty markets for crops that are grown in the north, namely alfalfa, or alternative crops that can be grown competitively to meet specialty market demand.* Such an effort would be complementary to and supported by the development of chile specialty markets and branding, but would require significantly more research in order to identify the most viable possibilities. Given that alfalfa is the most important agricultural product, it should be the focus of initial study efforts.

3.0 PROPOSED ACTIVITIES

3.1 Objective

To identify alternatives to building a chile processing plant that will achieve the objectives defined by the EDD for NNM.

3.2 Assumptions

The proposed activities are based on the following assumptions:

- Focus is still on NNM
- Focus is still on the chile industry
- Objectives are both economic and social
- Maximize impact of development resources for largest number of people in terms of jobs and market opportunity
- Leverage limited funds by working with private sector partners

3.3 Methodology

The key methodologies that are proposed for accomplishing the proposed activities include:

- *Stakeholder workshops* that bring together key participants in the New Mexico chile industry, including growers, processors, buyers, research institutions, suppliers, and financial institutions. Participation and commitment of industry stakeholders is critical to the effectiveness of the effort and its chances for success.
- *Specialty market research* to gather data that can be used to assess potential for specialty products to be produced competitively in NNM.
- *Competitive cluster analysis and development* techniques that provide stakeholders with the information and analysis they need to better understand their value chains and to collaborate in creating competitive advantage for all value chain members.

3.4 Proposed Activities

Based on the recommendations, Leap proposes four activities: 1) a pilot project to establish a New Mexico chile brand leveraging current opportunity in the organic fresh market; 2) investigation of alternatives for small scale local dehydration capability; 3) a competitive

assessment of NNM agriculture in relation to alternative crop specialty markets; and 4) a feasibility study of value added processing opportunities in alfalfa.

3.4.1 Pilot project to create a New Mexico chile brand

The project will work with existing organic farmers in the north and south, and existing buyers, such as La Montanita, Whole Foods and Raley's, to pilot a New Mexico organic brand in the regional market (New Mexico, Colorado), leveraging those buyers' existing demand and distribution networks. The promotional concept will be to roast NM fresh organic chiles on-site in store locations within the buyers' networks, leveraging established demand for roasted chiles to launch the brand. Contract farming arrangements will be negotiated between growers and buyers, and the project will provide support in developing the brand and standards that will be used in the promotion. Some dried and frozen organic product will also be tested at the same time. After building the brand in the regional organic market and establishing a position for NM chiles, the project will develop a national rollout strategy in conjunction with industry stakeholders, which uses the brand to link NM producers and processors into new value chains for specialty foods (e.g., restaurants). Ideally, the pilot can be implemented in time to take advantage of the 2007 chile season.

All aspects of project implementation will be coordinated through the New Mexico Chile Association, the industry's key stakeholder organization.

1. Develop New Mexico organic chile brand in collaboration with the New Mexico Chile Association (NMCA)

This task entails strategic planning workshops with industry stakeholders (including youth) led by the New Mexico Chile Association, to implement the following tasks:

- Consumer research to identify unique and recognized characteristics of NM chile and culture
- Establish brand characteristics and standards
- Design brand name and label (potentially through public competition)
- Develop identity preservation (IP) program and traceability system
- Establish licensing of the brand by the NMCA
- Develop a brand promotion strategy
- Develop a organic certification promotion strategy
- Develop NNM specialty brand

The resulting action plan will identify roles and responsibilities and define the tasks for implementation by the project participants going forward, subject to funding sources and budget constraints.

2. Promote the NM organic chile brand

Based on the stakeholder meetings a brand promotion strategy will be developed that will leverage a variety of channels to promote the brand. The project's focus will be on developing a brand website hosted by the NMCA that describes the brand; its characteristics and how its

identity and integrity is maintained throughout the distribution chain; profiles of family farms; recipes and roasting tips; etc. This is a task under which youth organizations can be effectively involved.

3. Promote organic certification through collaboration with the New Mexico Organic Commodity Commission

A key challenge will be improving accessibility and affordability of the organic certification for small growers. The project will leverage the Commission's marketing and education programs to help chile farmers achieve certification. Certification entails a great deal of paperwork (accountability) and additional costs. The project will explore approaches that create economies of scale for groups of farmers to achieve certification. The EDD's ISO 9000 program offers a model for consideration in promoting organic certification, not only in the chile, but in other agricultural sub-sectors as well. The state's ISO 9000 program provides 50% matching funds to help companies to defray the costs of seeking ISO 9000 certification. A similar approach to organic certification will be investigated.

4. Investigate and develop financing options for producers

The primary risk for growers is the gap between delivery and payment. Therefore, the project will collaborate with banks and other financial institutions to develop working capital loan instruments based on receivables (factoring), leveraging contract farming arrangements with key buyers. The project will investigate opportunities to leverage SBA and USDA programs through New Mexico banks.

5. Based on the results of the pilot, develop a national rollout strategy

A national rollout strategy will be developed in collaboration with the New Mexico Chile Association after the results of the pilot are assessed. The focus will be on expanding on the buyer distribution networks, or value chains, developed under the pilot, developing new buyers and value chains, and promoting on-line sales. The organic market currently offers the best opportunity to establish such a brand, but the window is time limited as the market becomes more and more price competitive overtime. Consequently, the brand effort is aimed at creating a differentiated image that can capture new market trends as they emerge, such as the rapidly growing consumer demand for product that is produced by small farmers and that can be identified in terms of origin. A successful pilot will create a viable model for small or medium sized farmers to achieve the standards associated with the brand and to sell into food systems value chains that recognize the cultural, social and environmental values that the brand represents, rather than relying on limited local markets and price competitive commodity markets.

3.4.2 Investigate alternatives for small scale local dehydration equipment, in the context of the above market development effort

Research and prototype small scale designs that are appropriate to NNM farms and communities, to identify the business and/or ownership models associated with each design, and to determine their strengths and weaknesses, costs and benefits, including:

- On farm, privately-owned
- Community-based, stationary
- Community-based, mobile

3.4.3 Conduct competitive assessment of northern New Mexico agriculture in relation to capturing specialty markets

In consultation with a NNM agriculture stakeholders group, conduct a competitiveness assessment as follows:

1. Identify the 10 most significant agricultural products of NNM in term of contribution to income and employment.
2. Evaluate each based on three minimum criteria (illustrative, to be determined):
 - Greatest potential impact
 - Potential size of earnings that can be generated
 - Percentage of population whose incomes will be improved
 - Strongest capacity to compete
 - Size and growth trend of markets
 - Ability to meet standards and specifications
 - Price competitiveness
 - Producer/manager skill base available
 - Ability to organize activities quickly and cost effectively
 - Existence of strong institutional support within the sector
 - Ease of overcoming potential regulatory and infrastructure barriers in the sector
3. Eliminate those that do not meet the minimum criteria above, and conduct in-depth study of the remaining sectors and their performance, based on existing studies and recent data and analyses.
4. Rank each sector on a scale of 1-5 based on the information gathered.
5. Identify top 3 sectors and conduct a SWOT of the value chain.
6. Develop a strategy and action plan for each sector.

3.4.4 Conduct feasibility study of alfalfa value added processing opportunities

Preliminary investigation of the uses and potential of processed alfalfa have revealed the following value added opportunities for New Mexico's most important crop:

- *Compressed alfalfa*, as a livestock feed, is commonly produced in the US to add value to alfalfa crops. Goat, rabbit, and cow feeds have been developed out of pelletized, compressed alfalfa. A small amount of additional research is needed to determine whether there is sufficient market for compressed and pelletized alfalfa to merit investment by the public sector. This IS a product that can benefit local farmers and ranchers as well as becoming a potential export (North American) product.
- *Chlorophyll extracted from alfalfa*, has two primary uses: as a food colorant and as a medicinal/nutritional dietary supplement. Chlorophyll is a high-value product, fetching \$50 per kilogram (FOB out of China) for basic chlorophyll paste (oil soluble) and up to \$100 per kilogram for Sodium Copper Chlorophyll. Based on initial research, the number of manufacturers/suppliers of extracted chlorophyll is limited and there is possible room for competitors to enter. Additional research is needed to determine the production, distribution and market profiles for chlorophyll products in order to determine whether there is any potential to create a "high dollar" technology-driven, alternative may be processing of dried, ground alfalfa meal to supply chlorophyll extract manufacturers.

3.4.5 Implementation Timeline

(Following page)

3.5 Expected Results and Deliverables

3.5.1 Deliverables

- Competitiveness Strategy and Action Plan for New Mexico Chile Industry
- National Brand Rollout Strategy
- Feasibility of local small scale dehydration capacity
- Competitiveness Strategy for NNM agriculture sector
- Feasibility Study for Alfalfa Extraction

4.4.2 Results

- Double the length of the chile season from three weeks in 2006 to six weeks in 2007
- Increase ten-fold the quantity of NM chiles sold from 25,000 in 2006 to 250,000 in 2007
- Gain and sustain market recognition for a NM chile quality brand that captures premiums for NM chile producers and processors.

IMPLEMENTATION TIMELINE

| TASKS | ACTIVITIES | DELIVERABLES | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | |
|---|---|--|-----|-----|--------|--------|--------|-----|-----|-----|--------|-----|-----|--------|--|
| PROJECT MANAGEMENT | | | | | | | | | | | | | | | |
| Team Monthly Progress Meetings | Meetings | Report | X | X | X | X | X | X | X | | X | X | | X | |
| Submit Monthly Progress Reports | Summarize project rollout progress | Report | X | X | X | X | X | X | X | | X | X | | X | |
| EDD Monthly Progress Meetings | Meetings | Updates and amendments | X | X | X | X | X | X | X | | X | X | | X | |
| Competitiveness Strategy and Action Plan for NM Chile Industry | Report | | | | 31-Mar | | | | | | | | | | |
| National Brand Rollout Strategy | Report | | | | | | | | | | 30-Sep | | | 30-Sep | |
| Competitiveness Strategy for NNM Agriculture Sector | Report | | | | | 30-Apr | | | | | | | | | |
| Feasibility Study for Alfalfa Extraction | Report | | | | | | 31-May | | | | | | | | |
| PROJECT IMPLEMENTATION | | | | | | | | | | | | | | | |
| 1. Pilot project to create a NM chilé brand | Develop NM organic chilé brand in collaboration with the New Mexico Chilé Council | Competitiveness Strategy and Action Plan | | | | | | | | | | | | | |
| | Promote the NM organic chilé brand | Website | | | | | | | | | | | | | |
| | Promote organic certification through collaboration with the New Mexico Organic Commodity Commission | Recommendations | | | | | | | | | | | | | |
| | Investigate and develop financing options for producers | Recommendations | | | | | | | | | | | | | |
| | Based on the results of the pilot, develop a national rollout strategy | National Rollout Strategy | | | | | | | | | | | | | |
| 2. Conduct feasibility study of local small scale dehydration capacity | Research and prototype small scale designs that are appropriate to NNM farms and communities, to identify the business and/or ownership models associated with each design, and to determine their strengths and weaknesses, costs and benefits | | | | | | | | | | | | | | |
| 3. Conduct competitive assessment of northern New Mexico agriculture in relation to capturing specialty markets | Identify 15 most significant agricultural products of NNM in term of contribution to income and employment. | Workshops | | | | | | | | | | | | | |
| | Evaluate each based on defined criteria | | | | | | | | | | | | | | |
| | Eliminate those that do not meet the minimum criteria above, and conduct in-depth study of these sectors and their performance, based on existing studies and recent data and analyses. | | | | | | | | | | | | | | |
| | Rank each sector on a scale of 1-5 based on the information gathered | | | | | | | | | | | | | | |
| | Identify top 3-5 sectors and conduct a SWOT of the value chain | | | | | | | | | | | | | | |
| | Develop a strategy and action plan for each sector | | | | | | | | | | | | | | |
| 4. Conduct feasibility study of value added processing opportunities in alfalfa | Conduct study of compressed alfalfa and chlorophyl extracted from alfalfa | | | | | | | | | | | | | | |

ANNEXES

ANNEX A: List of Information Sources

2004 New Mexico Agricultural Statistics
Bureau of Census, US Department of Commerce
California County Agricultural Commissioners
Economic Research Service, USDA
Farm Service Agency
Food and Agricultural Organization, United Nations
New Mexico Chile Task Force
New Mexico State University
Pettersson Online
US Department of Agriculture

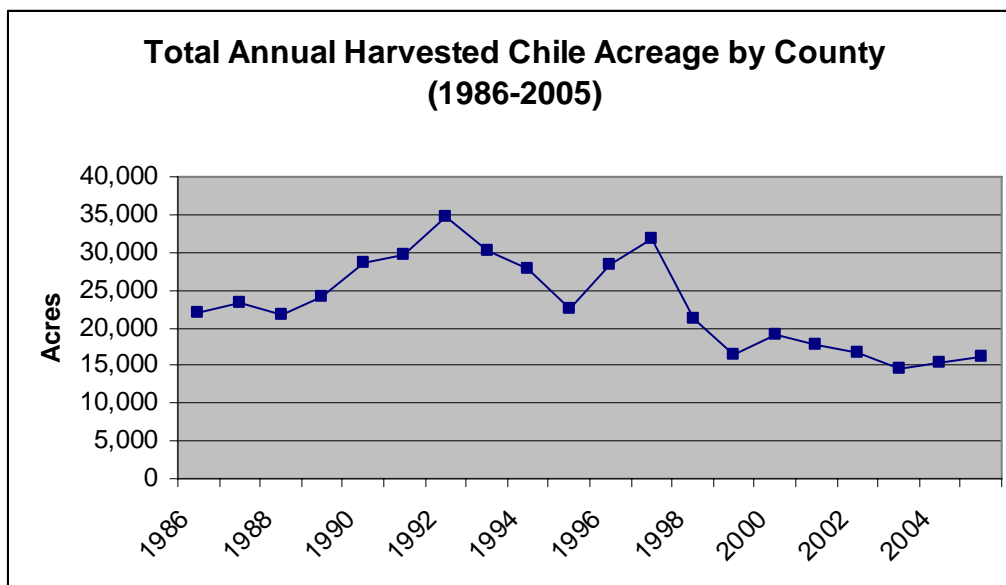
ANNEX B: Data Tables

ANNUAL HARVEST CHILE ACREAGE BY COUNTY (ACRES)

| Year | Dona | | Hidalgo | Sierra | Chavez | Eddy | Rio Arriba | Other Counties* | NM Total |
|------|--------|-------|---------|--------|--------|-------|------------|-----------------|----------|
| | Luna | Ana | | | | | | | |
| 1986 | 5,700 | 9,300 | 470 | 2,700 | 980 | 550 | 240 | 410 | 22,100 |
| 1987 | 5,900 | 9,800 | 580 | 3,000 | 1,000 | 645 | 275 | 550 | 23,400 |
| 1988 | 6,000 | 9,500 | 330 | 2,000 | 1,250 | 660 | 250 | 520 | 21,710 |
| 1988 | 8,440 | 7,800 | 410 | 1,200 | 2,500 | 1,420 | 250 | 730 | 24,150 |
| 1990 | 10,800 | 8,700 | 950 | 2,100 | 2,600 | 1,800 | 200 | 850 | 28,700 |
| 1991 | 12,100 | 8,200 | 1,500 | 2,000 | 2,100 | 2,000 | 200 | 850 | 29,700 |
| 1992 | 12,400 | 8,900 | 2,350 | 1,500 | 3,300 | 3,500 | 200 | 1,100 | 34,700 |
| 1993 | 9,200 | 7,900 | 2,050 | 1,750 | 2,900 | 2,600 | 250 | 1,250 | 30,150 |
| 1994 | 8,000 | 8,200 | 2,300 | 2,000 | 2,500 | 1,800 | 140 | 335 | 27,900 |
| 1995 | 8,200 | 6,000 | 2,200 | 1,000 | 1,400 | 1,000 | 140 | 360 | 22,400 |
| 1996 | 9,400 | 6,900 | 3,100 | 1,500 | 2,200 | 2,000 | 350 | 500 | 28,350 |
| 1997 | 9,500 | 6,800 | 3,600 | 2,000 | 2,600 | 2,100 | | 1,200 | 31,800 |
| 1998 | 7,300 | 6,300 | 2,500 | 850 | 1,650 | 800 | 250 | 150 | 21,300 |
| 1999 | 6,500 | 4,000 | 1,250 | 600 | 1,500 | 500 | | 850 | 16,400 |
| 2000 | 6,500 | 4,900 | 2,600 | 700 | 1,400 | 1,100 | | 800 | 19,000 |
| 2001 | 6,200 | 4,200 | 2,200 | 700 | 1,400 | 1,100 | | 800 | 17,700 |
| 2002 | 5,300 | 4,400 | 2,400 | 700 | 1,100 | 1,100 | | 500 | 16,800 |
| 2003 | 5,000 | 3,400 | 2,800 | 600 | 500 | 500 | | 400 | 14,700 |
| 2004 | 4,300 | 3,900 | 2,700 | | 1,100 | | | 3,100 | 15,400 |
| 2005 | 4,700 | 3,500 | 3,200 | | 1,300 | | | 3,100 | 16,200 |

Source: New Mexico State Agricultural Statistics

*From 1999 to 2001 “Other Counties” included Bernalillo, Guadalupe, Grant, Otero, Quay, Rio Arriba, Roosevelt, Sandoval, San Juan, Santa Fe, and Valencia. In 2002, the category included Bernalillo, Rio Arriba, Roosevelt, Sandoval, Sierra, and Valencia. In 2003, the category included Bernalillo, Cibola, Curry, Guadalupe, Otero, Rio Arriba, Roosevelt, Sandoval, Santa Fe, Socorro, and Valencia. In 2004 and 2005, the composition of the category was not disclosed, because the county data was so specific that it would reveal proprietary information about individual operators if disclosed.



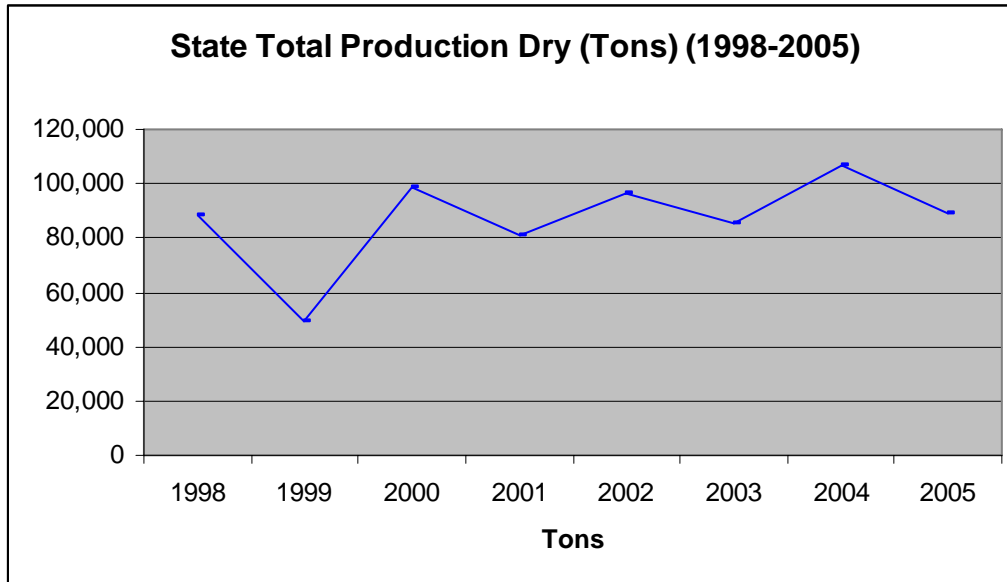
ANNUAL DRY PRODUCTION BY COUNTY (OOO, TONS)*

| Year | Luna | Dona Ana | Hidalgo | Chavez | Sierra | Lea | Eddy | Socorro | Other Counties** | NM Total |
|------|--------|----------|---------|--------|--------|-------|-------|---------|------------------|----------|
| 1999 | 33,260 | 10,400 | 6,375 | 4,050 | 1,020 | 1,500 | 600 | 580 | 1,300 | 21,300 |
| 2000 | 42,540 | 27,440 | 15,210 | 4,900 | 3,080 | 1,120 | 1,760 | 1,350 | 1,600 | 16,400 |
| 2001 | 32,900 | 21,000 | 13,200 | 4,900 | 2,800 | 1,600 | 1,800 | 1,200 | 1,600 | 19,000 |
| 2002 | 42,050 | 27,170 | 13,700 | 2,880 | 3,280 | 2,000 | 1,910 | 1,170 | 2,240 | 17,700 |
| 2003 | 43,680 | 24,410 | 8,630 | 1,450 | | | | | 6,350 | 16,800 |
| 2004 | 46,410 | 46,410 | 10,880 | 3,810 | | | | | 9,750 | 14,700 |
| 2005 | 47,190 | 16,720 | 9,570 | 4,070 | | | | | 8,500 | 15,400 |

Source: New Mexico State Agricultural Statistics

* Data only available starting in 1999.

**From 1999 to 2001 "Other Counties" included Bernalillo, Guadalupe, Grant, Otero, Quay, Rio Arriba, Roosevelt, Sandoval, San Juan, Santa Fe, and Valencia. In 2002, the category included Bernalillo, Rio Arriba, Roosevelt, Sandoval, Sierra, and Valencia. In 2003, the category included Bernalillo, Cibola, Curry, Guadalupe, Otero, Rio Arriba, Roosevelt, Sandoval, Santa Fe, Socorro, and Valencia. In 2004 and 2005, the composition of the category was not disclosed, because the county data was so specific that it would reveal proprietary information about individual operators if disclosed.



STATE AVERAGE PRICE DRY PRODUCTION (PER TON)

| Year | Average Price |
|-------------|----------------------|
| 1986 | \$1,054.00 |
| 1987 | \$1,060.00 |
| 1988 | \$1,065.00 |
| 1989 | \$1,095.00 |
| 1990 | \$1,145.00 |
| 1991 | \$1,270.00 |
| 1992 | \$1,260.00 |
| 1993 | \$1,210.00 |
| 1994 | |
| 1995 | |
| 1996 | |
| 1997 | |
| 1998 | \$655.50 |
| 1999 | \$629.67 |
| 2000 | \$494.04 |
| 2001 | \$546.23 |
| 2002 | |
| 2003 | \$481.00 |
| 2004 | \$471.00 |
| 2005 | \$538.00 |

Source: New Mexico State Agricultural Statistics

STATE TOTAL VALUE DRY PRODUCTION (\$000)

| Year | Total Value (\$1000) |
|-------------|-----------------------------|
| 1986 | \$37,269.00 |
| 1987 | \$38,353.00 |
| 1988 | \$38,555.00 |
| 1989 | \$41,953.00 |
| 1990 | \$53,564.00 |
| 1991 | \$59,219.00 |
| 1992 | \$67,379.00 |
| 1993 | \$56,077.00 |
| 1994 | \$55,868.00 |
| 1995 | \$44,840.00 |
| 1996 | \$65,460.00 |
| 1997 | \$62,460.00 |
| 1998 | \$58,110.00 |
| 1999 | \$31,115.00 |
| 2000 | \$48,910.00 |
| 2001 | \$44,245.00 |
| 2002 | |
| 2003 | \$41,080.00 |
| 2004 | \$50,330.00 |
| 2005 | \$47,790.00 |

Source: New Mexico State Agricultural Statistics

ANNEX C: Questionnaires

Questions for Farmers

Farm name, location

A. Production

How many years have you been farming?

How many acres of chile did you grow this year (by variety)?

How many acres did you plant and harvest in your best year and in your worst year?

How many tons/pounds did you harvest this year (by variety)?

How many did you harvest in your best year and in your worst year?

Labor practices—During harvest season, do you pay help by piece or hour? To what extent do you rely on volunteer/family labor? Would you say that labor is a barrier to effective chile production and harvesting? Please rate it on a scale of 1 – 5 with 1 being the best and 5 being the worst.

Describe your crop rotation sequence to prepare the ground for chile and what kinds of fertilizers or soil amendments do you add? Do you use any synthetic chemicals to control bugs, weeds, or fungus? If not, how do you control bugs, weeds or fungus?

How do you irrigate (drip, flood, sprinkler...)?

B. Marketing

In what forms do you sell your chile?

How do you market your chile (roaster, fresh in sacks, ristras, canning, and value-added [salsa])?

How do you arrive at your price?

How far do you have to travel to market and deliver your chile?

C. Standards and certification programs

Do you implement any identity preservation programs?

If so, how does this labeling or program work? How did you become involved in this program

Do you have any organic certification?

C. Concluding remarks and reflections

What do you think would enhance the economic viability of chile production at your farm?

Why do you grow chile?

Would you be interested in participating in value-added chile programs that would help increase the price you are paid for your products?

Questions for Processors

Name of Company, Location

a. Kinds of chile

What kinds of chile do you process?

(These questions will be directed at the processing of specific types of chile. Distinguish between fresh green, fresh red, dry red, fresh jalapeno, fresh Serrano, and dry paprika).

What kind of final products do you produce?

b. Volume of processing plant

What's the capacity/volume of the plant?

What months do you operate?

Where do you get your chile? How much comes from New Mexico?

How many months out of the year do you keep the plant operational?

Do you store chile before processing? If so, how much can you store and how long do you store it?

c. Final product

What kinds of final products do you produce?

What are your key markets? (i.e., wholesale, retail, farmers' market, mail order, on-line)

Can you tell me about how you market these products? (i.e., on line?)

Which products are the most profitable for your firm?

What is the price for each individual product unit?

d. Relations with producers/suppliers

During this past season, what did you pay on average for chile? (also high and low price)

How many farms supply your operation?

Do you offer contracts to chile growers?

If not vertically integrated, do you provide any inputs or credit to your suppliers?

f. Standards and certification programs

Do you implement any identity preservation programs?

If so, please explain how this labeling or program works.

As well, can you tell me how you developed this program at your plant?

Do you have any certifications (e.g., organic) If so, what are the costs of compliance?

Do you have a HACCP plan?

g. Concluding remarks and reflections

What do you think are the key factors for success in this industry?

What are the key constraints you face?

How do you think they can be overcome?

Questions for Community Leaders

1. What is Chimayo Chile?
 - a. Is it taste?
 - b. Community?
 - c. Cultural?
2. What are your views on agriculture in Northern New Mexico?
3. Is there a workforce anxious to work in agriculture in NNM?
4. Is there enough business to support a processing plant in NNM?
5. What direction should agribusiness be going in NNM?
6. Who can help and how?