Jalapeno Products



From Agrocosa and National Onion Inc.

<u>Executive Summary –</u> Agrocosa WHO?

How is it possible that a company that very few people have heard of can be the producer and shipper of the best jalapeño products in the world?

After many years of supplying US onion ring processors with single-centered fresh onions, 25 years ago Agrocosa was asked by some of those processors to also supply jalapeño products. Agrocosa's people went to work and developed the processes to grow, harvest, cut, brine and package jalapeño halves for cream cheese stuffing to make "jalapeño hot popper" appetizers. Then we supplied hundreds of semi-truckloads of jalapeño halves per year as that product soared in popularity.

Agrocosa's people adapted Cryovac plastic pouch packaging to the jalapeño industry, providing better quality and value to our customers, and beginning the replacement of the #10 steel can as the package of choice for jalapeños. We've shipped over 10 million pouches, and we now ship almost a million more each year. Others have tried to copy our pouch technology, but none have done so successfully.

For the past 12 years Agrocosa has supplied a variety of jalapeño products to foodservice distributors like Sysco, Ben E Keith, US Foodservice, Vistar / Roma / PFG, and Hawkeye Foodservice both for specific restaurant chains and for their own street sales. We also ship directly to dozens of other industrial and foodservice customers.

For all of those 12 years, Agrocosa has received the highest possible ratings on independent QA audits and customer QA audits. In 2007, Agrocosa became the first agricultural organization outside the US to be certified by Food Alliance for social and environmental responsibility.







Organizations

<u>Agrocosa</u> is the short form of Agropecuaria del Consuelo S.A. de C.V., a farming and food processing corporation located in Meoqui, Chihuahua, Mexico. This company was started by Mr. Eulalio Gomez Sr., and is currently owned by his widow and their children. Four of their five children currently work in the company:

Eulalio Jr. (Lalo) Gome2 and Engineering

Spent 1 year of college at a Jesuit school in Oakland, CA to perfect his English

Elizabeth Gomez - General Manager

B.S. in International Business (Finance emphasis)

Spent 1 year of college at BYU to perfect her English

Veronica Gomez - in charge of all HR & Logistics inside Mexico, and the onion packing shed

B.S. in International Business (HR emphasis)

Spent 1 year at a Jesuit college in Cañon City, CO to perfect her English

Miriam Gomez - Processing Manager

M.S. in Food Processing Engineering

Spent last year of high school at a Jesuit college in Cañon City, CO to perfect her English

In addition to their formal education, all of these children of Señor Gomez grew up on the farm and in the packing shed and processing plant. Because they grew up eating the product of their labors, Señor Gomez made certain that they understand the business but also the importance of quality in every step of the production process, from planting the seeds to sealing the package.

National Onion Inc. is owned by Steve and Paulette Smith, who formed the corporation to sell agricultural products from the Gomez farms. Over the 30 years of its existence, National Onion has focused on its three main businesses:

- •Sale of summer fresh onions from Agrocosa in Mexico and two other packing sheds in New Mexico (May Aug)
- •Sale of fresh and processed jalapeño from Agrocosa in Mexico
- •Brokerage of stored fresh onions from Utah / Idaho / Oregon and Washington (Sep Mar)

At various times, National Onion has also done business in fresh-cut spinach and pimento peppers for processing, and a few other short-lived ventures. Key personnel currently include:

Steven H. Smith - Owner, President, and Onion sales leader. He has a B.S. International Business (Marketing) Speaks fluent Spanish Steve started National Onion after college and has been in this business 30 years.

Luke Smith – Son of Steve, Luke joined National Onion fulltime in 2008. His responsibilities are the contract onions to the onion ring processors, Sales and Technical Manager for the Jalapeno and Chile products produced and also the transportation and logistics of loads to their final destination. Currently studying B.A. Business Management

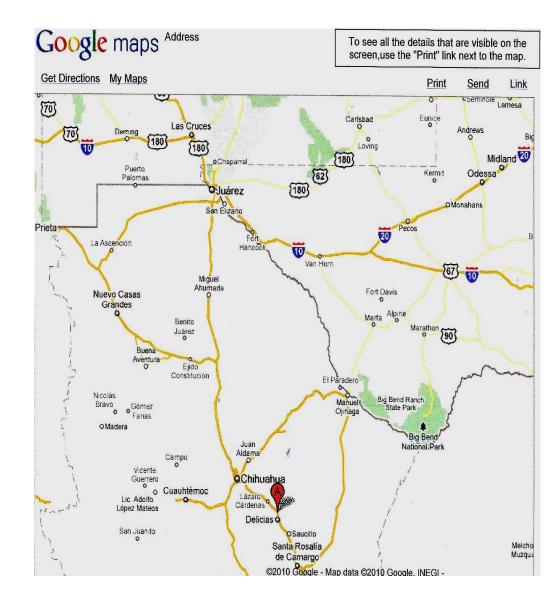
Micah Smith - Son of Steve, Micah joined National Onion in 2005, and focuses on Fresh Market Sales/Inventory and also Quality Control Documentation for the summer onion season. He also does the Brokerage Sales during the Fall/Winter/Spring months from other onion growing areas in the North West region. He has B.S. – International Business (marketing); speaks fluent Spanish.

Juanita Ramos-Lopez – Accounting Manager - B.A. Accounting. After a brief stint with the IRS, Juanita joined National Onion 17 years ago.

Locations

The Agrocosa farming, processing, and warehousing operations are located in and around the town of Meoqui, just outside the city of Delicias, Chihuahua, Mexico, about 300 miles south of El Paso, TX; 90 miles southwest of Presidio, TX; and about 45 miles southeast of Chihuahua City, Mexico. Twice-daily non-stop flights from the US are available on American from Dallas (DFW) or on Continental from Houston (IAH) to Chihuahua City.

Agrocosa's products brought to the US usually cross the Mexico / US border at the Santa Teresa, NM border crossing. Once cleared FDA & US Customs every load and product is trans-loaded from the Mexican carriers to our 30,000 sq ft state of the art distribution warehouse, then once at our warehouse the US hired trucks either through National Onion, Inc or customer trucks can be arranged for pickup.

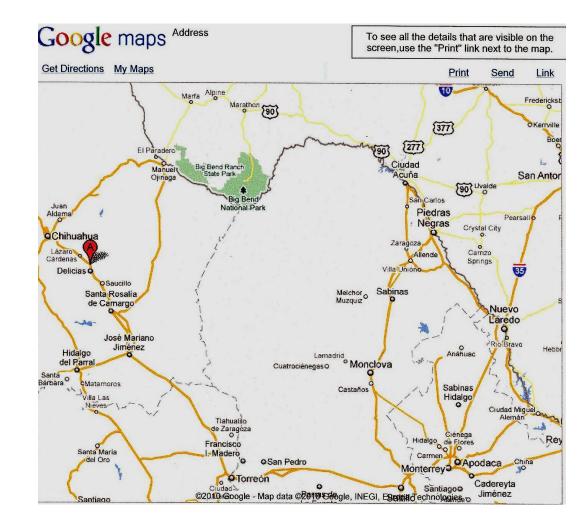


Local Freight Pick-Up

Agrocosa and National Onion maintain warehouse space on the east side of El Paso, TX, near the Zaragosa Bridge Port from Mexico. Most of our shipments load at this location.

Some customers may wish to pick up products at the factory warehouse in Meoqui. If the destination is San Antonio, TX, the best routing would be through Chihuahua City to Ojinaga and across the border to Presidio, TX. From there one could proceed to Marfa, TX and then east on Hwy 90 to San Antonio, TX. This route is a total of 630 miles, with no major cities to transit, and 70% of the mileage inside the US, on Texas state highways.

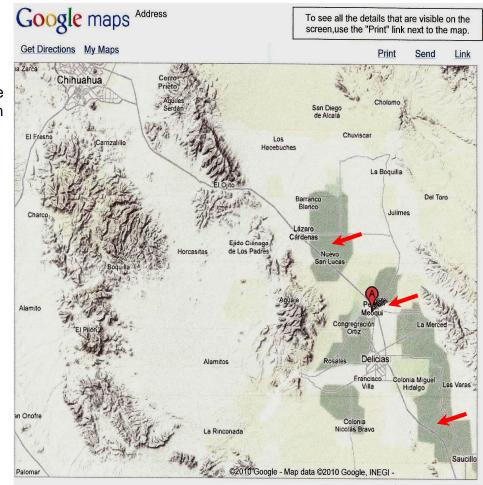
An alternate route would be to go south from Meoqui through Torreon, Saltillo and Monterrey to Nuevo Laredo. Crossing would be at Laredo and then a short trip up I-35 to San Antonio, TX. However, at 740 miles, this route is longer, with 80% of the distance on Mexican highways, and this transits three major Mexican cities.



Agricultural Capabilities – Locations:

Meoqui is in the center of a large high-desert valley that is irrigated from both the San Lucas Reservoir (Google Earth coordinates; 28 10 43 N x 105 26 60 W) and a large under-ground aquifer. The main crops in the area are (in order of decreasing acreage): alfalfa, onions, chile peppers & jalapeño, corn (mostly for silage), pecans, melons, potatoes, sweet potatoes, and smaller acreages of many vegetable crops. This is the single largest jalapeño growing area in all of Mexico, with approximately 5,000 acres.

Agrocosa is one of the largest growing operations in the valley, with approximately 2,500 acres owned and another 1,000 acres on long-term lease. Agrocosa has three major growing areas:



<u>Agricultural Capabilities – Locations (cont'd):</u>

- Consuelo where the factory and onion packing shed are located (Google Earth coordinates: 28 18 50 N x 105 27 51 W)
- Cardenas home of Dallas Mavericks forward Eduardo Najera

(Google Earth coordinates: 28 23 15 N x 105 31 00 W)

San Antonio – newest farm on the edge of the valley on the hwy toward Chihuahua City

(Google Earth coordinates: 28 24 05 N x 105 38 20 W)

Agrocosa also farms on long-term leased land located in the higher mountain valleys east and south of Meoqui.

Having the major growing areas dispersed provides greater variation in planting and harvest times, and protection against catastrophic losses due to isolated storms.

By owning or long-term leasing the land, Agrocosa can afford to make the investments in irrigation systems and can also control the long-term application of fertilizers and pesticides that affect the quality of the raw material entering our processing plant.

Agricultural Capabilities – Variety Selection:

Agrocosa's agricultural team works directly with seed companies to grow multiple annual field trials to assess the suitability of old and new varieties of jalapeño. In any one year, they will have more than 20 varieties in scientific field evaluation plots, and 4 or 5 of the best varieties from previous years in large field plantings for in-depth evaluation. Over the years, the Mitla-type (many varieties in this class) has proven best-suited to customer needs. However, specific varieties are planted and harvested separately for specific needs.

The vast majority of production is for pungency in the range of 1,500 – 3,000 Scoville Heat Units (SHU) as measured by the ASTA HPLC method (see Appendix 8). However, some customers want a milder pungency, so some acreage is designated for planting of a sweeter variety that can be used directly or blended with Mitla-type product to achieve the customer's desired pungency level.

For production of halves, it is desired to have as few seed-placental membranes as possible that have to be cleaned out of the finished product jalapeño half. Varieties are planted for this specific product.

For production of nacho-sliced, it is desirable to have as many seed-placental membranes as possible to give the appearance of the classic "wheel". An analysis of our standard production from the 2009 crop has shown that our existing varieties harvested at different times still yield an average of 75% slices with either 3 or 4 "cells".

Variety A – 1st pick (July) 80% 3-4 cells Variety B – 1st pick (July) 74% 3-4 cells Variety A – 3rd pick (Aug) 75% 3-4 cells Variety B – 3rd pick (Aug) 77% 3-4 cells

While these numbers from Mitla-type varieties are usually acceptable for 3-4 cell rings, our agricultural and processing teams will do more extensive field and processing evaluations to identify varieties and harvest times that will maximize this trait in the raw material to optimize meeting the customers' requirements.

<u>Agricultural Capabilities – Growing</u> <u>Practices:</u>

By owning or controlling its own land and having its own growing operations, Agrocosa guards against the fresh market adversely affecting availability of raw material for the factory. In 30 years of selling into the fresh and processed foods industry in the US, Agrocosa has never shorted any contract a single shipment.

Agrocosa has its own greenhouse operations for producing our own transplants of both onions and jalapeños (see Google Earth coordinates: 28 19 17 N x 105 27 47 W). Virtually all of the onions and jalapeños are grown from transplants.

Agrocosa's onions and jalapeños are grown under drip irrigation, which has several major advantages over furrow irrigation methods:

- •Less water is used, and is placed only where it is actually used by the growing plants. This assures that there will be adequate water for growing our crops even in drought years.
- •All water is filtered before going into the closed drip system. This enclosed system guards against surface contamination with bird or other animal feces (*E. coli* and *Salmonella sp.* contamination).
- •Drip irrigation's controlled, steady watering minimizes plant stress, and thus maximizes standardization of the pungency of the crop, within the natural genetic potential of the carefully selected variety planted.
- •Fertilizers are applied through the drip tubes, giving tightly controlled application and continuous feeding. This eliminates trips through the field for above-ground fertilizer application, and helps to prevent spread of plant diseases.
- •Continuous fertilization through the drip irrigation system avoids the deleterious effects on pungency uniformity that over- and under-fertilization have.

(See Johnson & Decoteau, Hostscience 31(7): 1119-1123, 1986

Appendix 1 attached.)









Through strict crop rotation, use of an enclosed watering system (drip irrigation), and careful use of natural biological insect predators, Agrocosa has been able to avoid the use of ANY pesticides on its onion and jalapeño crops for many years. Fields where jalapeños will be grown generally follow onions in the crop rotation, so no pesticides are used on those fields during jalapeño production or for the year prior to jalapeño.

We have had discussions with both the FDA and USDA, and the only reason we are not able to label our onions and jalapeños as "Organic" is that we choose to use mineral fertilizers instead of "natural" (manure) fertilizers because of the inherent risk of *E. coli* and *Salmonella sp.* contamination with "natural" fertilizers.

These are major quality advantages which Agrocosa's agricultural capabilities give us compared to all other processors who purchase fresh jalapeño raw material from growers over whom they have no or limited control.

(Note drip irrigation tube in picture)

- Other processors try to regulate pungency by blending raw materials from many growers.
 Agrocosa actually controls the pungency by careful variety selection for the intended use and customer requirements, and by careful control of the growing environment.
- Other processors try to avoid pesticide residue problems by field inspections. Agrocosa actually eliminates all pesticide use.
- Other processors try to avoid bacterial contaminants by in-plant sanitation. Agrocosa eliminates as many in-field contamination sources as possible.

<u>Agricultural Capabilities – Harvest Practices:</u>

Anyone who has traveled in Mexico, Central America, South America or any third-world country has seen the difficulty of bringing US food processing standards of sanitation to such societies. Agrocosa personnel have introduced intensive training of harvest personnel to assure sanitation in the field that is unique in jalapeño growing areas. These include:

- •Use of hygienic portable toilets by field harvest personnel
- •Enforced use of alcohol gel for hand sanitizing after toilet use.

The jalapeño fruits are hand-harvested in the field to assure care of the "mother" plants, and also to assure that only properly matured fruits are harvested. The fruits are placed in 5-gallon plastic pails and then transferred either to jute bags or tote bins. The product is tagged for date and location of harvest, to maintain the traceability records. The harvested crop is quickly moved to the factory receiving dock to maintain freshness.

Upon arrival at the factory receiving dock, the crop is either used immediately or stored in refrigerated cooler rooms.









Processing Capabilities:

Due to the sensitive and / or proprietary nature of some aspects of our process, this section will include only a general description of the process. Pictures are also only general in nature. Customers are invited to visit the factory during the processing season, and will there be shown in great detail what we do (no cameras or recording devices allowed). Customers visiting the factory are also invited to review HACCP, GMP, Sanitation, and QA processes and log sheets. To assure prospective customers of our high food processing standards, we share copies of the summary sheets from independent QA audit reports (see attached Appendix 2 for 2009 AIB inspection report, and Appendix 3 for 2008 Silliker inspection report).

Our processing facility is registered with the FDA, both as a "Low Acid Canned Foods" facility - FCE #14531 (see Appendix 4 attached) and also registered with FDA Bioterrorism registry - Registration #13592021048 (see Appendix 5 attached).

The main steps in the process include:

- Raw Material Washing

All jalapeños that enter the factory are either used immediately from the field, or are stored in one of several refrigerated rooms until used.

The first step in our process is washing and visual inspection. Washing is done on a continuous flow of product through a reel washer where chlorinated water is sprayed onto the tumbling peppers. Upon discharge from the washer, the peppers are inspected by trained factory personnel, who manually remove leaves, stems, off-colored peppers and any other unwanted materials.

- Raw Material Sizing and Sorting

The peppers are then sized and sorted mechanically and manually.

Sizing is done to enhance the suitability of each pepper for the purpose that it will best fit. For example, long and slender peppers are best-suited to make nacho-sliced, while mis-shaped peppers will be used for dicing.

Care is taken to provide adequate lighting to make the sorting process effective. Only reflected lighting or sleeved and shielded lighting fixtures are used in order to prevent glass contamination.



- Slicing

Our slicing process is a sensitive issue, and will not be discussed in detail, but customers are invited to visit the plant and see for themselves. Suffice it to say that we use the very best slicing, dicing, and pureeing equipment available in the world. Using this equipment, Agrocosa is able to provide nearly 100% perfect cuts of almost any type that our customers require.

In our HACCP program, knife sharpness and proper adjustment are critical control points that are monitored frequently.

Sterilization

Immediately after slicing, a hot water blanch is used to surface-sterilize the peppers or pepper pieces prior to packaging. Since the internal portions of the pepper are inherently sterile by nature, only this surface sterilization is required to make the product commercially sterile. Our process has been reviewed, approved, and registered by the Low Acid Canned Foods division of the FDA (see Appendix 6 attached). This surface sterilization requires only a few minutes at relatively low temperatures. As a result, the product is not cooked, and remains more firm in texture and more natural dark green in color than for canned products from our competitors.

In the canning process for sealed metal cans, cooking of the product is required inside the can in a steam retort at 212°F+ and at high pressure (estimate 12–14 psi) for an extended period of time (estimate 30+ minutes). For a discussion of this principle, see Appendix 7 from Texas A&M University and Texas Ag Extension Service on recommended time / temperature / pressure for preserving peppers. This canning process sterilizes the product, but also cooks the product, usually resulting in soft peppers.

In our blanching process, two critical control points are the time and temperature. Both of these are constantly monitored by automated sensing equipment. Calibration of these sensors is checked hourly.







- Packaging

Because our customers appreciate the superior texture and color of our products, the second step in commercial sterilization of the product is the "hot fill and hold" process inside our packages. A canned product is sealed at temperatures above boiling, and then a vacuum is drawn inside the sealed can during the cooling process.

Agrocosa has a range of plastic packages to fit all of our customers' requirements: 55-gallon drum, 5-gallon pail, 1-gallon pail, flexible pouch (6 per carton or 2 per carton), and individual pouches with one pepper inside.

The most popular Agrocosa package for the food service industry is the flexible plastic pouch. It has several major advantages over a #10 can:

- 1. More product and less brine saves money
- Approx. 18–19 lbs of drained product per case in #10 cans
- -Minimum of 24 lbs of drained product per case in Agrocosa pouches
- -case price may be higher than #10 cans, but "per serving' cost is lower
- -"Freight cost per serving" is reduced. Transport product, not brine.
- -896 cases per truckload for #10 cans → approx 18,000 lbs of drained product / load
- -1,008 cases per truckload for Agrocosa pouches → approx 24,200 lbs of drained
- Warehouse and in-store storage cost per serving is reduced for the same reasons above.
 - 2. "Easy Open'
 - no cuts on employees' hands and fingers
 - no can openers in the way or to keep track of in the store
- 3. Easy disposal
 - a dramatic reduction in volume of waste disposal costs
 - 100% recyclable, if one chooses
- 4. Clear package
 - allows easy visibility of the product quality
 - carton label only (saves costs) no label on individual packages
 - no problem with lost labels from a can
 - you can tell what it is



All pouches are not created equal, for several reasons:

- 1. Agrocosa uses only authentic "Cryovac" plastic laminate films, and runs them only on authentic "On-Pack" machines, recommended by Cryovac for use with their films.
 - This provides a superior seal and air barrier
 - Authentic "Cryovac" film provides superior UV protection for the product.
 - Shelf life of 18 months from date of manufacture.
- 2. We have multiple machines, so we have no shortage of capacity.
- 3. Agrocosa was the first to successfully package jalapeño in flexible pouches.
 - Several competitors who do #10 cans have tried to do plastic pouches and given up.

One even had the gall to call us to see if we would purchase their left-over

film!

- After 12 years of experience, we have shipped about a million pouches.
- We ship almost a million pouches a year.
- Our long-term failure rate is only about 0.0006% leakers.

So, with the Agrocosa flexible pouch, customers get a better quality product at a lower total cost. What's not to like?

- Packaging - Cost Savings Experience & Calculator

Here are the actual real-life savings experienced by an Agrocosa customer who switched from #10 cans to our pouches for nacho-sliced product.

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In #10 cans 896 cases / load
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18 lbs net drained / case → 16,128 lbs net drained wt / load

44 loads per year → 39,424 cases per year

709,632 net drained lbs per year

\$16.50 / case net FOB **>** \$0.91667 / net drained lb

→ \$650,496 TOTAL net FOB

Inbound Freight @ \$1,100 / load → \$1.228 / case → \$0.0682 / drained lb

→ \$48,400 per year

Outbound Freight @ \$1.50 / case → \$0.0833 / drained lb

→ \$59,136 per year

Warehousing costs @ \$0.35 / case → \$0.01944 / drained lb

→ \$13,798 per year

Total Annual Cost of Use / drained lb: \$1.0876

Total Annual Cost of Use: \$771,830

In Pouch cases

1,008 case per load

24 lbs net drained per case → 24,192 lbs net drained per load

23 loads per year → 23,184 cases per year

556,416 net drained lbs per year (slow-down in the economy reduced sales)

\$18.90 / case net FOB → \$0.7875 / net drained lb

→ \$\$438,177 TOTAL net FOB

Inbound Freight @ $\$1,100 / \text{load} \rightarrow \$1.091 \text{ per case} \rightarrow \$0.0455 / \text{drained lb}$

→ \$25,300 per year

Outbound Freight @ \$1.50 / case → \$0.0625 / drained lb

→ \$34,776 per year

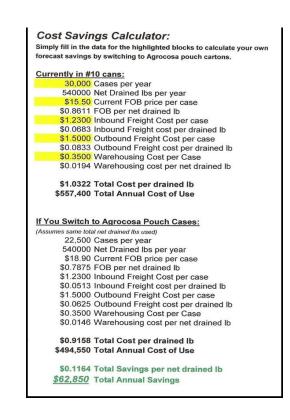
Warehousing costs @ 0.35 / case $\rightarrow 0.01458$ / drained lb

→ \$8,114 per year

Total Annual Cost of Use / drained lb: \$0.91008

Total Annual Cost of Use: \$506,367

Total Savings / drained lb: \$0.17752 / drained lb Total Annual Savings – adjusted for lbs used: \$98,775 On this memory device, open the "Cost Savings Calculator" Excel spreadsheet file. Enter your own current costs in the yellow-highlighted cells. Maintaining your current-cost confidentiality, it will calculate the projected savings you can expect from switching to Agrocosa pouch cartons.





- Post-Production Handling

Agrocosa's harvest and production season runs from late June until mid-October. Everything we make during those four months is stored for shipment during the coming year. Storage of drums and pails is on pallets (see example picture below).

If production was into plastic pouches, then storage is in large plastic bins until the final packaging process. At that time, the pouches are wiped, labeled, and placed in the labeled cartons (6-pouch or 2-pouch) and palletized (see Appendix 13 for examples of labels).

Agrocosa holds its products in the factory warehouse in Meoqui, Chihuahua, Mexico until the customer Purchase Order and Shipping Order are received. The entire load is then assembled and re-inspected to identify and remedy any problems. Only after everything is confirmed as perfect is shipment made to the US warehouse in our own sealed trucks.





Agrocosa currently uses a 30,000 sq ft warehouse near the border crossing in Santa Teresa, NM as a transfer warehouse and for temporary holding during US Customs and FDA clearance prior to final shipment on customer trucks or trucks arranged by National Onion.

Quality Assurance Capabilities:

There are many facets to Agrocosa's Quality Assurance efforts in the factory and warehouse facilities. Because we are sensitive about sharing some of our techniques, some of this information will be general in nature. However, customers are invited to come and visit and see for themselves the care we take to assure the quality of our products.

Factory Sanitation

Agrocosa personnel sanitize all factory and equipment surfaces to maintain a sanitary processing environment. All equipment surfaces in contact with product are made of 316 stainless steel. All lubricants are food grade.

Agrocosa Quality Assurance personnel test the effectiveness of sanitation procedures using non-instrument "snap-valve" glucose-sensitive swabs. These give 60-second results for instant confirmation of cleanliness.

Insects are controlled by screens or plastic strip doors at all entrances, and "blue-light" insect attractants. These are monitored and cleaned at least weekly during the processing season.

Plant and warehouse exterior and interior rodent control are done by Agrocosa people using "Catch-All traps inspected daily.

All glass is logged and inspected regularly.

Agrocosa received a "Superior" rating from AIB on our last independent QA audit (see Appendix 2).

Ingredient Specs

All ingredients have written specifications, and are tested on receipt to verify compliance. Packaging materials are purchased in Mexico, but brine ingredients are imported from US or Canadian manufacturers to help assure compliance with all GMP, Kosher, and other specification requirements.

Metal Detection

All Agrocosa products pass through Mettler – Toledo – Safeline metal detectors. These are checked for proper operation hourly, using test materials provided by the manufacturer.

Pungency Testing

When required by the customer, pungency of the product is tested by an outside lab – Southwest BioLabs of Las Cruces, NM. Southwest uses the approved American Spice Trade Association (ASTA) testing procedure for High Pressure Liquid Chromatograph (HPLC) sampling (see Appendix 8).

- Traceability & Mock Recalls

Every package of Agrocosa product bears a stamp of the production code. This code can be traced from the final customer back through our systems to the lot of seed that was planted in the field. Mock recalls are done semi-annually, but we have never had a real recall.

- Independent Audits

Agrocosa employs either Silliker or AIB for outside independent QA audits annually during our production season (July through mid-October). Results of those audits are shared with existing customers. Potential customers are given only the summary score pages (see Appendices 2 & 3).

Customer Audits

Agrocosa's customers are encouraged to do their own QA audits at any time, but especially during the production season (July through mid-October). Several customers do this on a regular basis. Customer audit results are not shared with any other customers. Some customers do not do full-fledged QA audits, but do make visits to check on the status of the crop, our production, and to view the fields and factory. These are welcomed any time, but for jalapeño, the best time is during the production season.

Airline connections are easy, with twice-daily non-stop regional jet flights from the US available on American from Dallas (DFW) or on Continental from Houston (IAH) to Chihuahua City. A passport is required for entry into Mexico and for return to the US.

Kosher Certification

Agrocosa has its facilities and processes inspected every year for Kosher certification (see Appendix 9).

Customer Certificates of Analysis

Agrocosa will provide Certificates of Analysis with each shipment, if requested by the customer (see example, Appendix 10).

Conclusions:

- 1. Agrocosa has the agricultural capability to produce the highestquality jalapeño raw material in the world.
- 2. Agrocosa has the facilities, equipment and processes to produce the highest-quality brined jalapeño products in the world.
- 3. Agrocosa personnel are among the best-trained in the industry.
- 4. Agrocosa and National Onion have the capacity and capabilities to supply the quantities and qualities required by any customer in the US food industry.
- 5. Agrocosa's plastic pouch in carton packaging provides the best value to customers by providing the lowest "total cost per serving".