

Student Research

Case Studies in Agribusiness

California Polytechnic State University San Luis Obispo Year 2015

Head Start Nursery: Rooted in Quality

Luis Alonzo*
Clinton Loomis‡

Michael Joyce†
Doug Kaplan**

*Agribusiness, Cal Poly San Luis Obispo

†Agribusiness, Cal Poly San Luis Obispo

‡Agribusiness, Cal Poly San Luis Obispo

**Agribusiness, Cal Poly San Luis Obispo

This paper is posted at DigitalCommons@CalPoly.

https://digitalcommons.calpoly.edu/agb_cs/18



Headstart Nursery: Rooted in Quality

Luis Alonzo, Michael Joyce, Clinton Loomis and Doug Kaplan prepared this case under the supervision of Dr. Wayne Howard in AGB 462 Applied Agribusiness Problems as the basis of class discussion rather than to illustrate either effective or ineffective management.

From the Beginning

It all started at California Polytechnic State University in San Luis Obispo, California when Steve Costa could not do anything except eat, sleep and breathe baseball. He knew that at this point in his life he had one vision and one dream, to play collegiate ball while studying biology on the side. However, without a full ride scholarship, paying for both school and living expenses was going to be extremely difficult. It was for this reason that during one summer Costa decided to work in the Salinas Valley for the Christopher Family, who owned and operated a large scale garlic farm. Little did Steve know at the time, the relationship and friendships he was creating with the Christopher family, were going to completely change the ways he viewed life, what he found important, and where he wanted his career to go. It wasn't long after Costa began working on the farm the he decided to change majors to ornamental horticulture and decided it would be in his best interest to take as many business classes as he possibly could. It was only a few years later in 1979 that Steve Costa, Don Christopher, and Bill Christopher

decided to jointly start a business in Gilroy, CA known today as Headstart Nursery in order to supply Christopher Ranch with bell pepper transplants.

Headstart's first growing season was so successful that they began working on other projects. Peppers are a warm season crop and are harvested twice per year between June and November. In order to utilize the greenhouses year-round, Headstart began producing cauliflower transplants. Cauliflower is a cool season crop and is harvested between October and June. By selling these transplants during the pepper off-season, Headstart's reputation as successful horticulturists began to grow.

In the 1980's California cut flower producers began expanding into new types of exotic flowers. Traditionally the florist industry had focused on the "big three": carnations, roses, and chrysanthemums. As florists began to experiment with Snapdragons, Lisianthus, and Asters they found that they were very difficult to germinate. Headstart seized this opportunity for growth and began to grow specialty flower plugs, further expanding their reputation. Over time they became an industry leader in specialty flower plugs and by 2015 they had become a regular stop during the California Spring Trials flower show in which they showcased their skills for flower growers throughout the nation.

Headstart has constantly reinvested its profits back into the company since its original inception. Costa's leadership with the financial backing of the Christophers' allowed for a massive expansion over time. They expanded across California to the cities of Salinas, Castroville, Mecca, and Thermal in order to take advantage of their diverse climates. As of 2015 they had grown to over 2.5 million sq ft of covered greenhouse space. This belief in constant reinvestment and expansion allowed Headstart to become the 24th largest nursery in the country by 2015. By this time their increasing reliance on automation had allowed them to shrink their

number of employees down to 220 employees, while they were selling over \$40 million per year through all combined operations.

Management of Company and Labor Relations

Currently, between all three Headstart Nursery Inc. locations, Steve Costa employs about 220 employees at a given time. Employees are divided into teams and are assigned a certain task to complete during their eight to ten hour shift. Approximately every other week the teams switch jobs. Costa does this in order to maintain high productivity and to avoid work-related injuries. Costa stated that one of the most common work related job injuries involved repetitive motion. This type of workplace injury is one of those less obvious but definitely harmful in the long run. Greenhouse workers do an extensive amount of repetitive motion which can strain muscles and tendons causing back pain, vision problems, and carpal tunnel syndrome.

Employee safety is a very important issue for any business owner, and Costa does not take that lightly. He is very adamant that his company maintain high safety standards because he does not want any employee getting injured on the job. At the greenhouses there is heavy machinery involved (forklifts) and moving pieces that can be dangerous to any employee if he or she is not paying attention. As a result of the high risk of injury on the job, Costa provides employees with incentives so that they can always maintain high level of awareness on the job. Even though the employees are split into different teams, it doesn't matter if one team is injury free or followed all the rules, it only takes one employee from any team to void any incentive that is given at the end of the month. In turn, this helps employees motivate one another so that they can all be eligible to receive their incentives at the end of the month. Some incentives that Costa provides for the employees are free lunches for everyone and that can range anywhere

from burritos from a food truck or food catered from a restaurant of their choice. Another reward that Costa provides are flat screen TVs that are raffled amongst the employees.

Although Costa is a very busy entrepreneur he is always trying to find ways to maintain high employee morale within the company. Costa mentioned that employees at his company enjoy working at the greenhouses because they would rather work at a greenhouse than to do back-breaking work out in the fields of Gilroy. An example of labor intensive work out in the field would involve picking strawberries, where a person is constantly bending over, which results in back problems. Some employees enjoy working at the greenhouses so much that they have been with the company for over ten years.

Employee Performance

At Headstart Nursery Inc. there comes a time of year where employees are laid off. This only occurs when Headstart's production starts to taper off and consequently there is not enough work to go around for every employee. To alleviate this problem, Costa rates his employee's performance based off a scorecard and using the piece rate system.

The piece rate system compensates employees for a set amount for each unit of work completed. For example, when the greenhouse workers are hand seeding the trays, this process can be long and tedious. When utilizing this system, this gives the employee the opportunity to earn more money and helps to increase their productivity levels.

As a result of this, employees are evaluated at the end of the week or month by using the scorecard and the piece rate system. This in turn, helps Costa to determine which employees will be laid off for the remainder of the season.

Vertical Integration

Headstart Nursery Inc. provides the best quality transplants and plugs that are compact, well-rooted, and ready to grow. They strongly believe that everything they grow is “Rooted in Quality.” In order to be the best at what they do, it all starts with the seed variety they purchase for their transplant operation. In the past Headstart Nursery would purchase their seed from a seed broker. For that reason Costa decided to start his own seed company (Radicle Seed Company) to cut that expense out from his operations.

It all started when watermelon farmers switched from the direct seeding method to the more cost-effective method of hand transplanting watermelons. This gave watermelon farmers the ability to minimize labor costs but more importantly this reduced the days to harvest. The old growing method for watermelons was more labor intensive and not seed efficient. Farmers would plant two seeds per hole about every thirty-two inches apart. Once the plant took off and germinated, the field workers would thin out one plant. This process required more labor and more seed. With seed costs being at twenty-two cents per seed, this was an increasing costs that farmers wanted to minimize costs. Farmers turned to Headstart Nursery because they were the first to provide growers with watermelon transplants.

Consequently, the seed brokers were not making as much profit because the farmers were going to Headstart Nursery to buy their watermelon transplants from them. Therefore, the seed brokers decided to increase their seed costs in order to stay competitive. Costa being the savvy entrepreneur that he is, decided that he too wanted to get in on the seed business. Lo and behold, T&C Supplies Company was born in 1985.

In 2013 T&C Supplies was reborn as Radicle Seed. Radicle Seed has been a west coast leader in seed and agricultural product sales since 1985. They supply growers throughout the Salinas Valley, Central Valley, coastal and desert regions with vegetable seed and other supplies.

Radicle Seed currently employs three full-time field representatives to meet regularly with growers and seed companies to stay informed of the newest varieties and most effective growing techniques. With the addition of Radicle Seed, Costa can now supply seed and transplants at one low price.

Logistics

As the company grew and more contracts had to be filled, Costa had to decide where he would expand his current operations. According to Costa, you cannot just build greenhouses wherever you want. There are many factors that have to be taken into consideration when deciding where to build quality greenhouses. For example, in Gilroy California, many farmers and greenhouse growers have to deal with the fog belt that comes in from Monterey County. Costa is fortunate enough that he got lucky which he calls “stupid luck” in that he does not have to deal with the tule fog. Weather is an important aspect that needs to be accounted for, which is why Costa decided to expand his operations to the desert region in Mecca California and to the coastal climate of Castroville California. By having multiple locations, Headstart Nursery is able to have an ideal growing environment at any time of the year. This is a major advantage for Headstart Nursery, because this allows them to grow the best possible crops for all their customers.

Headstart Nursery's main facility and company headquarters are in Gilroy, California, just 25 miles north of Salinas. Gilroy's warm summers, cool nights, and high light intensity make it an ideal climate to grow transplants year-round for the San Joaquin and Salinas valleys. They also have satellite facilities in Castroville and Salinas, where they can take advantage of the cooler coastal climate and ship directly to local growers. They have approximately 800,000 total

square feet of covered greenhouse space in Northern California, plus raised benches and other outside growing areas for optimal conditions at all stages of crop development.

By the early 1990s, Headstart Nursery's vegetable transplant business had grown to include many different row crops, including peppers, watermelon, and celery, for growers up and down the west coast. To better service their customers in Southern California and Arizona, Headstart began building greenhouses in the Coachella Valley in 1993. The desert locations expanded quickly to be more than 700,000 square feet they have today. At various times of the year, they can shift plants between the desert and Gilroy locations. This unique flexibility enables them to grow superior plants for all their customers at any time of year.

Rooted in Quality

At Headstart Nursery, everything they grow is "Rooted in Quality." Customers know they can rely on their experience and expertise to consistently produce top quality transplants and plugs that are compact, well-rooted, and ready to grow. Headstart Nursery has been growing vegetable transplants and ornamental plugs for more than 30 years. They have highly qualified growers and production managers that work hard to produce vigorous, uniform plants at all times of year. Unlike other nurseries, Headstart is not afraid to take on the "hard stuff." In fact, they specialize in difficult-to-grow crops, from bell peppers, seedless watermelon, and artichokes, to specialty cut flowers, perennials, and herbs. Headstart is among the first nurseries in California to be certified by the CCOF and are now experts in organically grown transplants. Headstart Nursery's product lines are constantly expanding as customers request new crops and varieties. Because of their versatility, experience and expertise, top growers around the country know they can count on Headstart Nursery to provide superior plants that are always "Rooted in Quality."

Wages And Hours

Issues involving labor are currently a common problem among agribusiness firms in California. Between shortages, regulations and increased costs associated with labor, agribusiness companies like Headstart Nursery are having to adapt to new realities. “We just had a two hour meeting in this [conference room] yesterday about labor,” said Costa when asked if labor is an issue at the nursery. Headstart uses primarily in-house labor with only 5% of their labor being contracted labor. The primary reason for using in-house labor is that the markup from contract labor would be too expensive for Headstart to bear. Other issues involving contract labor have encouraged the nursery to invest in their own permanent employees.

The effective management of labor is an important part of Headstart’s strategy to keep their overhead expenses under control. When asked about why Headstart is self-insured Costa said, “If you can manage your own labor and do it safely [no injuries] it’s much cheaper.” Workmans compensation is much cheaper for the nurseries’ employees than for contract labor. Headstart saves 10-12% on workmans comp versus contract labor. Another reason Costa is less likely to use contract labor is the growth of regulation around contracted labor. Firms that use contracted labor are facing increased liability as new regulations stipulate that businesses must abide by numerous workplace laws and provide substantial training to the contracted employees in some cases. An example of the training Headstart must now provide is “ladder training,” which makes sure contracted workers know how to properly operate a ladder or Headstart could be liable if there is an injury. Given that the growth of contract labor was a response to increased worker union liability in the 1980s it’s now logical why Headstart is now looking for alternatives to contract labor. Despite the challenge posed by workplace labor laws, the greatest financial challenge Headstart is facing involving labor stems from new minimum wage laws.

Minimum wage laws present a unique problem for Headstart Nursery as governments at the county, state and federal levels seek to raise the cost of labor. Headstart employees make on average \$9.75/hour which is 75 cents above minimum wage in California. However, on January 1st, 2016, the minimum wage in California is set to increase to \$10/hour, and in response Headstart is reluctantly raising their prices. In 2012, Headstart faced a more threatening situation when Santa Clara County attempted to raise its minimum wage to \$12/hour. Gilroy is located in Santa Clara County which has a highly unequal distribution of wealth between different areas. The more expensive Silicon Valley is in the northern part of the county while Gilroy in the south is much less expensive. Residents of the northern Silicon Valley tried to raise the minimum wage so working people could afford to live in the San Jose area, however this was much higher than a living wage for southern Santa Clara County. Headstart Nursery lobbied successfully to have the minimum wage proposal stopped by the county government, and their main argument was that other nursery businesses located in nearby San Benito County would outcompete Gilroy's nurseries and jobs would be lost. Today, due to the high cost of labor Headstart has 80 fewer employees than in the 1990s even though their greenhouse space has increased by 1.5 million sq ft since that time.

The effects of increasingly expensive labor become apparent when visiting Headstart Nursery's Gilroy location. Walking down what seems like endless rows of greenhouses, one begins to notice that beneath all the plants, behind the scenes, there are tremendous amounts of equipment and machinery that is used daily to keep the operation going. As labor wages continue to increase, Costa and his crew at Headstart have begun implementing more and more automation to keep the process streamlined and efficient. Much of the equipment is similar to that of many operations. There are forklifts, tractors, vehicles, etc. However the impressive and

unusual equipment is able to be viewed upon entering the production line where seeds are placed into their tray to begin the growing process. There are 3 different lines running in the same building. One line consists of manual labor where hands place seeds directly into the trays. This line is typically used for small batches of very rare or small orders. There were a few individuals who were all placing seeds in the trays as fast as they could, and it appeared as though it was taking about a minute per tray. Secondly, there was an old machine that was approximately 15-20 feet long that was capable of running short batches in about 10 seconds per tray. Lastly stood Costa's new "toy". Approximately 75 feet long and about 12-15 feet tall, this behemoth was capable of pushing trays out one after another with what seemed like no time at all. It appeared to take a few laborers to run the machine, however the trays were coming out the end of the line so quickly, that it was obvious that it would have taken many, many more workers to the same amount of work. It is with machinery such as this that Costa is able to combat the continuously increasing labor wages.

Industry Background: Transplant & Floriculture Nursery Production

Headstart Nursery is mainly a wholesale transplant company, but they also sell poinsettias which involves them in the nursery and floriculture production industry. Major US companies in this industry include Costa Farms, Ball Horticultural, Color Spot Nurseries, and Monrovia Nursery. Global sales of commercially grown flowers total about \$50 billion. Developed countries in Europe, the Americas, and Asia account for about 90 percent of floriculture product demand. The US nursery and floriculture production industry is fragmented, which means that the industry is comprised of many firms with relatively little market share ("Nursery and Floriculture Production").

The nursery and floriculture industry currently faces challenges related mostly to labor and automation. Automation of production technology has proven to be difficult for firms in this industry aside from the widespread use of irrigation and fertilization systems. Due to the nature of different growing seasons for plants, revenues and many expenses are highly seasonal. Second quarters often generate the most revenue for firms in this industry since this is the ideal time to plant transplants provided by nurseries, and this leads to uneven cash flows over the course of the year. This industry is very labor intensive, and labor expenses are higher compared to other agricultural industries due to the larger number of highly skilled employees at nurseries and greenhouses. In the US, production of bedding plants is widely spread throughout the US, but cut flowers and foliage plants are produced mainly along the coasts in California, Florida, and Oregon. Most of Headstart's revenue is not generated by floriculture but by vegetable transplants which puts them in another distinct industry as well.

The wholesale transplant industry for vegetable transplants is very consolidated compared to the floriculture nursery industry. There are about 20 major wholesale transplant firms, but Costa notes that about five transplant nurseries have predominant market share in the industry. Many of the large transplant nurseries don't try to compete directly with other nurseries who specialize in different crops. Transplant nurseries don't have the resources to be competitive in growing every type of crop. Headstart focuses on growing bell peppers and other hard to grow transplants and declines competing in other crop markets like tomatoes. Windset Farms, a large producer of greenhouse tomatoes, would be the type of greenhouse company that transplant nurseries like Headstart could compete with, but it's usual that they focus on their own crop mix rather than try competing over price.

The third industry Headstart is involved in is the seed production industry through Steve Costa's ownership of Radical Seed company. The seed industry is spread throughout California with seed production being reported in 64% of CA's counties. In 2008, there were 684 firms authorized to sell seed in California. California is known as a premier location for crop breeding, variety development and seed production, particularly of horticultural crops and agronomic crops other than soybeans. Due to an ideal climate for seed production in California, the CA seed industry is seen as a leader in the complex global seed industry that includes growers, processing facilities, distribution networks, and research institutions. In 2008, California seed companies generated \$2.9 billion in gross revenue from sales worldwide, and the sale of field crop seeds and vegetable seeds accounted for 76% of global sales revenue for California seed companies (Matthews).

Seed producing firms in California are able to sell their products with high margins to nursery businesses indicating market consolidation within the seed industry. Transplant businesses which are reliant on seeds as inputs are subjected to high inputs costs. California seed companies received 74% of their gross revenue from the wholesale sale of seed. This market condition encourages transplant nurseries to vertically integrate or partner with seed companies in an attempt to control costs. However, seed companies must also consider their own expenses. The two highest expenses for the seed industry are seed production and marketing and sales, which represent 51% and 34% of labor and capital expenditures respectively (Matthews).

Competition

Companies in this industry grow and sell nursery stock such as plants, shrubs, sod, trees, and seeds. Major US companies include Costa Farms, Ball Horticultural, Color Spot Nurseries, Monrovia Nursery and Headstart Nursery. Global sales of commercially grown flowers total

about \$50 billion, according to the International Trade Centre. Developed countries in Europe, the Americas, and Asia account for about 90 percent of floriculture product demand. The US nursery and floriculture production industry includes about 50,000 farms with combined annual revenue of about \$13 billion. Headstart Nursery and Radicle Seed average annual revenue combined is about \$40 million.

Demand for this industry is driven by consumer income, new home construction, commercial real estate construction and arable land. The profitability of individual companies depends on anticipating demand for various types of plants, efficient distribution, and competitive pricing. Large operators have economies of scale in distribution. Small operators can compete successfully by raising specialty plants or serving a local market.

Transplant Process

From start to finish, the transplant process is a multi-layer operation that takes time, money, and expertise to master. The entire process takes place in hopes to lessen the amount of time crops are in the field, ensure uniformity, and increase the likelihood of successful crops for varieties that are typically tricky to germinate under normal field conditions. There are various crops and varieties that benefit more through the transplant process than others, these include, but are not limited to, lettuce, onions, celery, tomatoes, broccoli, cabbage, and cauliflower. On the other hand, root crops and legumes, such as beans or peas gain very little advantage through transplanting.

There are two major types of systems used by growers to start the seedling process. 1: Placing seeds directly into small pots that will be used for the life of the transplant process, 2: Place seeds into large flats and transferring them later into containers in which they will be allowed to continue growing.

After the plants are finished growing in the transplant facility, it is time for them to be transported to the field for planting. It is during this time that the plants typically suffer from transplant shock, which has less to do with the damaging of delicate roots, but the shock from a brand new environment. It is the goal of farmers and transplanter to minimize this shock as much as possible so that the plan growth can continue its course.

The Economics of Growing Vegetable Transplants in a Greenhouse

Plants represent only a small portion of the total cost of growing vegetables. Healthy, disease free plants are necessary to produce good yields of high quality. Because of the benefits of using containerized transplants, more growers are considering growing their own transplants in greenhouses. Growers need to determine if it is better to "grow their own" or to purchase greenhouse-grown plants from commercial plant growers. Transplant production in greenhouses requires close supervision and management. Producing transplants within a closed environment means many management decisions must be made before they are put into practice.

For illustrative purposes, a cost estimate is presented for a direct seeded rail system. Table 7 shows the total investment estimate, for this example, per rail house at about \$44,870.32. The investment estimates for a float house would be almost \$7,000 less. Table 8 shows operating costs of about \$5,844.46 per crop in the rail house. Since seed costs vary greatly by vegetable and hybrid vs. non-hybrid, seed costs are not included in the tables. Table 9 shows total annual costs -- amortization and operating. For one crop in the rail house, amortization is \$4,235.44 or \$9.98 per thousand plants. For two crops, annual amortization would not change, but amortization per 1,000 plants would be half. This results in a savings of

\$4.99 per thousand plants. Operating costs per crop would be about the same for each crop -- \$5,844.46 or \$13.86 per thousand plants. Total costs would be \$23.84 per thousand.

Table 10 shows how total cost per 1,000 plants varies with different number of cells per tray and with number of crops grown per year. One crop produced in trays with 242 cells would be about \$27.79 per thousand. As cells per tray increase, cost per 1,000 declines to about \$22.46. At two crops per year, costs range from \$20.83 to about \$18.16 per 1,000. (

California Water Drought

There are 5 major components that have helped to lead to what is currently known as California's most devastating water drought. As of 2015, it was reported by NASA that they believe there is not enough water in California to provide its citizens and industries for another year. First, California relies heavily on snowpack and snow melt to provide water to large cities, lakes, rivers and agriculture; however, this year marked the fourth year in a row that the California mountains experienced well below normal snowfall. Second, when the surface water (lakes, rivers, streams, etc.) are low, Californians tend to drill wells and aquifers to pump water from the ground. This has recently caused a significant decline in the amount of water resting below the surface, which has resulted in the necessity for California to create legislation regulating the use of groundwater. Third, due to the fact that California is among the largest farming states in the nation, tremendous amounts of water must be pumped for this industry alone. Fourth, the neighboring states surrounding California are also experiencing below average rain and snowfall, resulting in less water being borrowed from across the state borders. Lastly, the population of California has doubled in the last 35 years from approximately 20 million to 40 million, causing the water usage to more than double. These factors have all contributed to the current water drought that California is experiencing today which has in turn

caused the creation of many water boards and districts whose job it is to regulate the amount of water being consumed in hopes to lengthen the amount of time Californians have before they run into what could be a devastating disaster. (Dimick)

In Gilroy, CA, where Headstart Nursery is headquartered, the Santa Clara water district is in charge of monitoring the water usage. As a large portion of farmers are seeing the extremely harsh consequences of the drought, including but not limited to, the drying of wells, high costs to pump water etc, Headstart Nursery seems to have been among the lucky few. With extremely low rates to purchases an acre foot of water, a nice water recharge program, and a healthy river running through the back of the greenhouse nursery, they seem to not be concerned about the possibility of running out of water any time soon. This being said, they are indeed taking various measures to ensure that they are conserving the most amount of water possible to help fight the drought, and to help out their neighboring farms.

Headstart Nursery's location in the Santa Clara Water District has benefited the company by shielding them from the worst effects of the current drought. Steve Costa noted that unlike many other areas of California the Santa Clara Valley is relatively well-supplied by existing water resources, and Headstart only pays about \$20-30 per acre-foot of water. Commenting on the water situation Costa said, "it's ridiculously cheap, and heavily subsidized," which contrasts with the water situation for farmers down in Southern California that often pay \$150-200 per acre-foot for water.

Input Expenses

Headstart Nursery must grapple with input costs that fluctuate to a high degree due to market forces. Natural gas, which is traditionally used to heat greenhouses, can represent a large share of production costs depending on the market price. In years where natural gas prices

have risen Headstart utilizes propane to heat their greenhouses, but because of the recent decline of natural gas prices Headstart has switched its heating inputs back to the traditional source. In 2011 and 2012 natural gas was \$12/dekatherm, and today it is \$3/dekatherm. When Steve Costa first started Headstart Nursery they benefited from convenient and cheap natural gas from the area around Gilroy. There were already many processing sites for natural gas left from the 1950s in Santa Clara County. Last year at their Coachella Valley location Headstart was spending \$20,000 every two days to truck in natural gas to heat the greenhouses in the early season. It's financially beneficial for this reason that not all of Headstart's operation is located in the Coachella Valley.

Opportunity to go Organic

Headstart Nursery was one of the first transplant businesses to become certified organic after the establishment of the USDA organic standard in the mid-1990s. Headstart now has 350,000 square feet of covered greenhouse space devoted solely to organic production, and they produce over 100 million certified organic transplants each year. About 50% of the greenhouse production at the Gilroy location is dedicated to organic production. Steve Costa attributes his company's increasing involvement in organic crops to consumers trends.

Growing transplants organically isn't without its own unique risks. For some crops Costa views organic growing practices as unnecessary due to the safety of conventional fertilizers and pesticides used on crops. In some instances the residues left on organic crops can be more dangerous than those of conventionally farmed crops, and there can be an increased risk of bacterial contamination from organic fertilizers made from sources like manure. When commenting on how far conventional farm practices have come Costa says, "in 1985 yeah we were spraying stuff that was stupid, but that's not the way it is anymore, and everything now is

designed to [safely degrade].” Given some of the challenges of growing organic transplants, Headstart Nursery doesn’t specialize in this market as much as other nurseries like Speedling Nursery who focus much more on organic and sustainable transplant production.

Affordable Care Act

Headstart Nursery has had different challenges posed by government regulations in recent years that vary from just inconveniences to serious inhibitors of growth. The 2010 Affordable Care Act, commonly known as Obamacare, enacted many changes to the health care system in order to improve health care coverage as well as limit the growth of health care expenses. However, many businesses have experienced increased costs because of the health care law. Obamacare mandates that any employer with over 50 employees must provide health care coverage to all employees who work over 30 hours a week, or the employer will face a penalty from the government (Thurm). The projected price tag for Headstart to insure all their employees would be over a million dollars if all their employees had chosen to enroll under Obamacare. The cost of Obamacare is a challenge not just for Costa who says, “the cheapest Obamacare [package] is \$3500 a year per person,” but also for Headstart employees who would face \$5,000 deductibles. Costa argues that the healthcare plans offered under Obamacare don’t make sense for his employees because, “if somebody breaks their arm tomorrow they won’t get fixed because it’s \$6000 they have to pay [between the deductible and copay] out of pocket” Costa says. Headstart Nursery offered these health care plans to their employees and only about 18% of the workers enrolled in them. If more employees had enrolled in Obamacare health care plans Headstart could of seen a 10% to 20% increase in total payroll expenses. The Affordable Care Act has posed a challenge to Headstart, but for now the company has avoided a dramatic increase in its payroll expenses.

Current Civil Action Lawsuit

There are many different threats that companies such as Headstart face every day. Some are so severe that they could cause the company's doors to close, others are minor and simply cause a headache for the personnel handling the situation. Currently, Head Start is dealing with the more severe of the two types of threats. What was originally a small 3 person labor law dispute, which was settled after 9 months in the Fair Housing Department and was supposed to cost the company approximately \$25,000 in legal fees, ended up turning into a 200 person class action lawsuit which has racked up bills of \$500,000 to date with the potential of another \$1,950,000 if the case is lost.

The basis of the lawsuit lies behind the fact that labor laws in California are constantly being updated to protect the labor workers. This is not always a bad thing, however, it has become the responsibility of the businesses to inform and educate themselves on any new changes. This provided a problem for Headstart when they became unaware of changes, and therefore unintentionally did not comply to the new laws. If Headstart Nursery is found “guilty” of these labor disputes, they will be forced to back pay every employee one hours worth of wages per day that the dispute occurred. As of today that would work out to an astonishing \$1,950,000 (200 employees * 50 weeks of work per year * 5 days of work per week * \$9.75 per hour * 4 years= \$1,950,000). A loss of this magnitude has the potential to cause drastic implications on the company, and according to Steve Costa, this is currently the largest threat the company has seen to date.

Headstart Nursery Looking Forward

As the company grows and becomes more profitable, Costa has made it clear that reinvestment will continue. In order to provide his customers with the highest quality products, and the best customer service at competitive prices, he realizes that he must continue to reinvest and scale operations. As he looks forward, Costa stated that automation within the industry is here to stay. What one machine can do in one minute, could take multiple laborers multiple minutes. He plans to continue purchasing technology and equipment that will help the overall efficiency and quality of the operations. After all, Headstart Nursery's motto is "Rooted in Quality."

Despite the challenges Costa is facing, Headstart's outlook is positive. Mechanization will allow for a reduction in labor costs and save money by reducing Affordable Care Act expenses. Costa's shift towards mechanization as a way to cut costs follows the general trend in the industry, and he foresees a future in which most of Headstart's labor has been replaced by machines.

The main concern for the future is the potential for future class action lawsuits. By mechanizing current manual labor tasks, Headstart will reduce exposure to labor law violations. Costa has decided to dedicate more resources to preventing another potential lawsuit, and plans to do everything in his power to keep future litigation from eating away at profits. His solution to the hit to revenue caused by the 2014 lawsuit was to "regretfully increase prices", but in a competitive environment this will not work as a long-term strategy.

Headstart's practice of reinvesting of yearly profits will continue to allow for expansion. Arable land is decreasing in California, but the nature of horticulture's reliance on weather rather than soil will not affect Headstart (Medvitz). This will allow for Headstart's continued

yearly expansion and will set the company up to further capture market share in the transplant industry.

Exhibit 1 Minimum Wages at Local and State Levels

**Changes in State and Local
Minimum Wages, 2013**

	2012 Minimum Wage	2013 Minimum Wage
Arizona	\$7.65	\$7.80
Colorado*	\$7.64	\$7.78
Florida	\$7.67	\$7.79
Missouri	\$7.25	\$7.35
Montana	\$7.65	\$7.80
Ohio	\$7.70	\$7.85
Oregon	\$8.80	\$8.95
Rhode Island	\$7.40	\$7.75
Vermont	\$8.46	\$8.60
Washington	\$9.04	\$9.19
Albuquerque, NM	\$7.50	\$8.50
San Francisco, CA	\$10.24	\$10.55
San Jose, CA	\$8.00	\$10.00

*This is the proposed 2013 Colorado minimum wage. A public hearing was held on November 1, but the \$7.78 rate has not been officially confirmed.



Exhibit 3 Workers’ and Employers’ Share of Healthcare Costs

Employee Contributions and Out-of-Pocket Costs—National Average

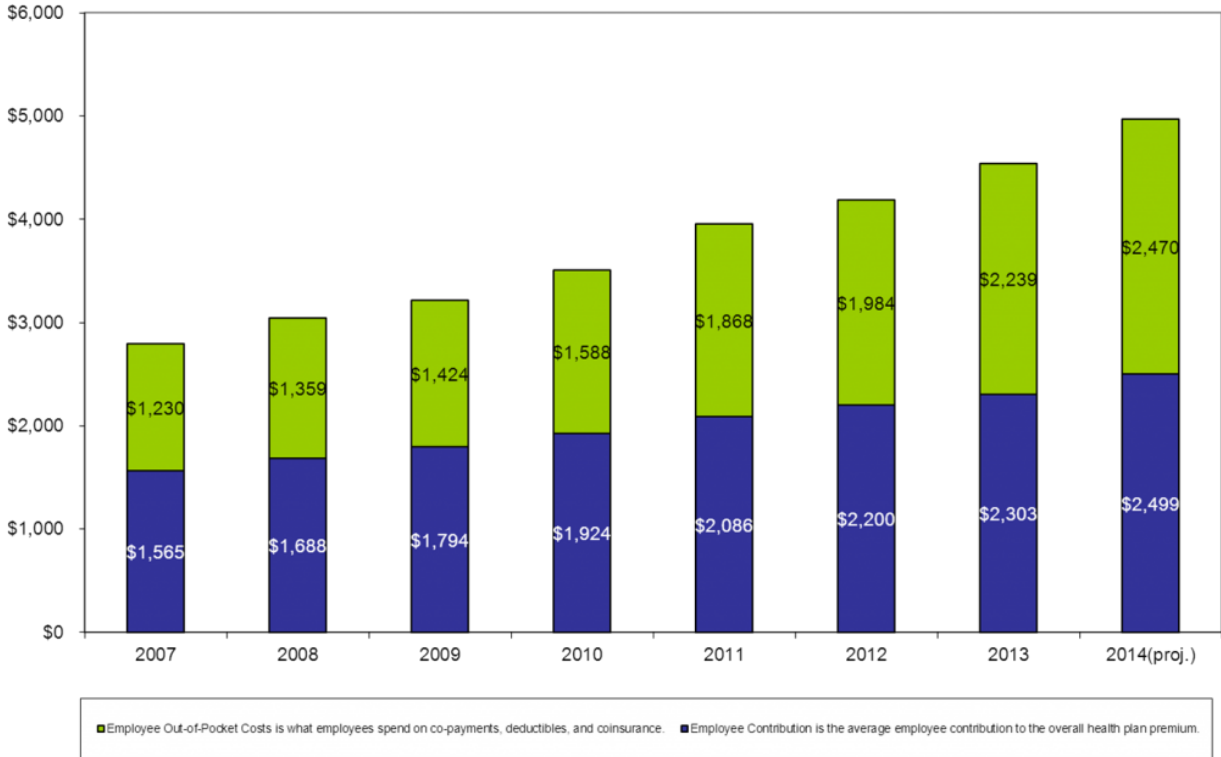


Image 1 Headstart Nursery’s Gilroy Staff with Steve Costa in the center wearing a red shirt



Exhibit 4 Top Greenhouse Grower Ranked By Size

2015 Greenhouse Grower Top 100 Grower List

2015 Rank	2014 Rank	Company	State	2015 U.S. Environmentally Controlled (Square Feet)	U.S. Acreage (Shade Houses)	U.S. Acreage (Field Production)
1	1	Color Spot Nurseries	CA	21,100,000	204	2,703
2	3	Costa Farms	FL	15,071,760	747	1,392
3	2	Altman Plants	CA	11,596,852	62	400
4	4	Kurt Weiss Greenhouses	NY	9,238,232	30	89
5	5	Rocket Farms	CA	8,305,120*		
6	7	Bell Nursery USA	MD	7,400,000		
7	6	Metrolina Greenhouses	NC	7,000,000		184
8	74	Color Point	KY	4,800,000		
9	8	Green Circle Growers	OH	4,573,800		20
10	10	The Sun Valley Group	CA	4,000,000*		
11	11	Delray Plants Co.	FL	3,868,116	119	20
12	12	Speedling	FL	3,684,000		
13	13	Milgro Nursery	UT	3,500,000*		
14	15	Ivy Acres	NY	3,383,970*		
15	21	Olson's Greenhouse Gardens	UT	3,079,531	0	37
16	16	Kerry's Nursery Inc.	FL	3,000,000*		
17	18	Floral Plant Growers	WI	2,826,360		6
18t	19	Matsui Nursery	CA	2,800,000		
18t	16	Woodburn Nursery and Azaleas	OR	2,800,000	2	
20	9	Aris Horticulture	OH	2,631,460	65	
21	20	Dallas Johnson Greenhouses	IA	2,600,000		
22t	22	Bay City Flowers	CA	2,500,000*		
22t	22	Smith Gardens	WA	2,500,000		60
24t	43	Headstart Nursery	CA	2,400,000		15
24t	26	Tagawa Greenhouse Enterprises	CO	2,400,000		
26t	28	Bela Flor Nurseries	MO	2,395,800		

Exhibit 5 Headstart Nursery Transplant Availability and Price Sheet

**HEADSTART NURSERY, INC.
VEGETABLE AVAILABILITY**

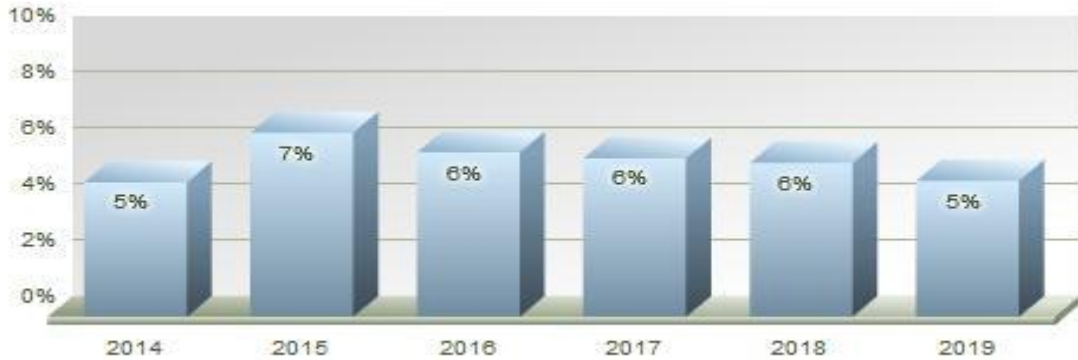
Conventional Transplants					
Crop	Container	Price	6/7-6/13	6/14-6/20	6/21-6/27
Brussels Sprouts	128	Call For Pricing	800	800	800
Cauliflower Solvang	308	Call For Pricing	120	0	0
Pepper Baron	308	Call For Pricing	970	0	0
Pepper Maccabi	308	Call For Pricing	150	0	0
Certified Organic Transplants					
Crop	Container	Price	6/7-6/13	6/14-6/20	6/21-6/27
Broccoli Gypsy	162	\$35.00	37	0	19
Broccoli Gypsy	200	\$35.00	17	0	0
Cabbage Caraflex	200	\$35.00	6	0	0
Cabbage Emiko	200	\$35.00	36	0	12
Cabbage Gregorian	200	\$35.00	46	0	12
Cabbage Red Jewel	200	\$35.00	47	0	12
Chard Bright Lights	162	\$35.00	48	0	16
Chard Fordhook Giant	162	\$35.00	48	0	16
Eggplant Orient Charm	162	\$35.00	16	0	0
Eggplant Orient Express	162	\$35.00	15	0	0
Fennel Orion	200	\$35.00	12	0	0
Herb Basil Genovese	200	\$35.00	18	0	0
Herb Basil Nufar	200	\$35.00	0	18	0
Herb Rosemary Upright (Cutting)	128	\$35.00	7	0	0
Kale Lacinato	200	\$35.00	0	17	0
Kale Red Russian	200	\$35.00	34	17	0
Kale Ripbor	200	\$35.00	28	17	0
Lettuce Adriana	200	\$35.00	55	0	0
Lettuce Red Cash	200	\$35.00	23	0	0
Lettuce Skyphos	200	\$35.00	30	0	0
Pepper Baron	308	\$45.00	1	0	0
Pepper Chichen Itza	162	\$35.00	33	0	0
Pepper Mammoth	162	\$35.00	8	0	0
Pepper Maccabi	308	\$45.00	27	0	0
Pepper Mesilla	162	\$35.00	15	0	0
Tomato Amish Paste	162	\$35.00	38	0	0

Exhibit 6 Head Nursery Specialty Annual Flower Options

Specialty Annuals	Tray Size:
200 Cell	
Abutilon Bella Apricot Sh	Tray 200
Abutilon Bella Mix Select	Tray 200
Abutilon Bella Pink	Tray 200
Abutilon Bella Red	Tray 200
Angelonia angustifolia Serena Blue	Tray 200
Angelonia angustifolia Serena Lavender	Tray 200
Angelonia angustifolia Serena Lavender Pink	Tray 200
Angelonia angustifolia Serena Purple	Tray 200
Angelonia angustifolia Serena Waterfall Mix	Tray 200
Angelonia angustifolia Serena White	Tray 200
Asparagus densiflorus sprengeri	Tray 200
Asparagus setaceus plumosus	Tray 200
Asparagus virgatus	Tray 200
Bacopa sutera Bluetopia	Tray 200
Bacopa sutera Snowtopia	Tray 200
Begonia Benariensis Big Red / Bronze Leaf	Tray 200
Begonia Benariensis Big Red / Green Leaf	Tray 200
Begonia Benariensis Big Rose / Bronze Leaf	Tray 200
Begonia Dragon Wing Pink	Tray 200
Begonia Dragon Wing Red	Tray 200
Calendula Bon Bon Apricot	Tray 200
Calendula Bon Bon Mix	Tray 200
Calendula Bon Bon Orange	Tray 200
Calendula Bon Bon Yellow	Tray 200
Calendula Bon Bon Yellow Lt	Tray 200
Coleus Kong Empire Mixture	Tray 200
Coleus Kong Mix	Tray 200
Coleus Kong Mosaic	Tray 200
Coleus Kong Red	Tray 200
Coleus Kong Scarlet	Tray 200
Crossandra Tropic Flame	Tray 200
Crossandra Tropic yellow Splach	Tray 200
Diascia Asca Apricot	Tray 200
Diascia Diamonte Coral Rose	Tray 200
Diascia Diamonte Lavender Pink	Tray 200
Dichondra Emerald Falls	Tray 200
Dichondra Silver Falls	Tray 200
Gloxinia Avanti Blue	Tray 200
Heliotrope Marine	Tray 200
Iresine Purple Lady	Tray 200
Linaria Fantasy Magenta Rose	Tray 200

Exhibit 7 Industry Forecast

US personal consumption expenditures of flowers, seeds, and potted plants, which are a major driver for nurseries, are forecast to grow at an annual compounded rate of 5 percent between 2015 and 2019.



First Research forecasts are based on INFORUM forecasts that are licensed from the Interindustry Economic Research Fund, Inc. (IERF) in College Park, MD. INFORUM's "interindustry-macro" approach to modeling the economy captures the links between industries and the aggregate economy.

Table 7. Estimated Investment and Annual Costs for Direct Seeded Rack Greenhouse.

Number Houses	1
Per House (30' x 148')	
No. Styrofoam Trays	1,570

No. Cells per Tray	338
No. Cells per House	530,660
Percentage Cells w/Plants	0.80
Total Plants per House	424,528
Total Plants, All Houses	424,528
No. Crops to Be Grown	1
Total Plants per Year	424,528

Item	Unit	No. Units	Cost/Unit	Total Costs	Your Farm
Investment Outlays:					
Site Preparation	Ea.	1.00	1,000.00	\$ 1,000.00	_____
House Kit	Kit	1.00	14,210.22	14,210.22	_____
Styrofoam Trays	Ea.	1,570.00	1.60	2,512.00	_____
T-Rail & Frames	Ea.	1.00	2,574.20	2,574.20	_____
Irrigation System	Ea.	1.00	3,698.48	3,698.48	_____
Seeder	Ea.	1.00	4,500.00	4,500.00	_____
Well & Pump	Ea.	1.00	3,500.00	3,500.00	_____
P.T. 2x6 Lumber	Ea.	16.00	6.92	110.72	_____
Door	Ea.	1.00	200.00	200.00	_____
Concrete	Yd.	5.50	65.00	357.50	_____
Electrical Service (professionally wired)	Ea.	1.00	7,500.00	7,500.00	_____
Gas Hook-Up	Ea.	1.00	1,200.00	1,200.00	_____
Erect Greenhouse	Hr.	256.00	13.70	3,507.20	_____
Total Investment Costs				\$44,870.32	_____

Table 8. Estimated Investment and Annual Costs for Direct-Seeded Rack Greenhouse.

Item	Unit	No. Units	Cost/Unit	Total Costs	Your Farm
Annual Operating Costs per Crop					
Potting Medium	cu. ft.	314.00	6.25	\$1,962.50	_____
Tray Replacement	%	31.4	1.60	314.00	_____
Seed (seed cost excluded)	thou.	530.66	0.00	0.00	_____
Fertilizer (20-20-20)	lb.	60.00	0.65	39.00	_____
LP Gas	gal.	800.00	1.16	928.00	_____
Electricity	Kwh	400.00	0.08	32.00	_____
Repairs	dol.	44,870.32	0.01	448.70	_____

Taxes (40%)	dol.	20,395.80	0.02	407.92	_____
Replace Plastic Cover	dol.	0.25	1,511.00	377.75	_____
Labor:					
Seeding	trays	1,256.00	0.40	502.40	_____
Removing Trays	hr.	8.00	6.50	52.00	_____
Management	hr.	70.00	6.50	455.00	_____
Interest on:					
Operating Costs	dol.	5,202.71	7.00%	364.19	_____
Other					
	Pest & Weed Control				_____
Total Operating Costs				\$5,844.46	_____

Table 9. Total Cost of Plant Production.

1. Annual Amortization of Investment:			\$4,235.44
	Years Life	20.00	
	Interest Rate	7.00%	
1a. Annual Amortization per 1,000 Plants			\$9.98
2. Total Annual Operating Costs			\$5,883.46
2a. Operating Costs per 1,000 Plants			\$13.86
3. Total Annual Costs per House			\$10,118.90
4. Costs per 1,000 Plants		Less Seed	\$23.84

Table 10. Costs* per 1,000 Plants with Various Cell Sizes and Number of Crops Grown.

Number of Cells per Tray	Number of Crops		
	1	2	3
	\$	\$	\$
242	27.79	20.83	18.50
288	25.57	19.71	17.76
338	23.84	18.85	17.18
392	22.46	18.16	16.73

Works Cited

Costa, Steve. Personal Interview. 13 May 2015

Dimick, Dennis. "If You Think the Water Crisis Can't Get Worse, Wait Until the Aquifers Are Drained." *National Geographic*. National Geographic Society, 21 Aug. 2014. Web. 1 June 2015

First Research. N.p., n.d. Web. 5 June 2015

Matthews, A. William. "The California Seed Industry: A Measure of Economic Activity and Contribution to California Agriculture." University of California Agricultural Issues Center. September 2009. Web. 24 May 2015.

Medvitz, G. Albert; Sokolow, Alvin. "Can We Stop Farmland Losses? Population Growth Threatens Agriculture, Open Space" *California Agriculture* 49(6):11-17. DOI: 10.3733/ca.v049n06p11. November-December 1995.

"Nursery and Floriculture Production." *First Research*. Hoover's Inc. 23 March 2015. Web. 10 May 2015

Thurm, Scott. "Will Companies Stop Offering Health Insurance Because of the Affordable Care Act?" *The Wall Street Journal* 16 June 2013. Web. 29 May 2015.