



The *New* American Farmer

Arnott and Kathleen Duncan, Duncan Family Farms

Goodyear, Arizona

Summary of Operation

- Wholesale vegetable and fruit operation on 2,000 acres, about 400 of them certified organic
- Diverse “agri-tourism” educational and recreational opportunities

Problems Addressed

Spending time with family. Kathleen Duncan, who had worked outside the home, became unhappy with the time she spent away from her young sons. She and her husband, Arnott, wanted to combine their careers — farming and education — with raising their two sons in a family enterprise.

Public education. “We realized that we were looking at the first generation who really doesn’t know where their food comes from, other than the grocery store,” Kathleen says. “People can get anything year round.” Moreover, the “good-guy” image of farmers had taken a beating, at least in their area, Kathleen says, primarily because of perceptions of agriculture’s heavy use of chemicals and water.

Relations with non-farm neighbors. With houses in plain view of the farm, the Duncans needed to create an enterprise that not only fit in with the suburban community, but also took advantage of the proximity to potential customers.

Background

The couple designed Duncan Family Farms to educate children and other visitors about food production and the environment. On their farm, located near Phoenix, they offer a yearly pumpkin festival and myriad educational programs and tours. Through their educational programs, the Duncans stress where food comes from, how farmers play a vital role in the community and the importance of caring for the environment. The Duncans demonstrate the sustainable agricultural practices they use on their 2,000 acres of vegetables and berries.

A fourth-generation farmer, Arnott joined his brothers, Michael and Patrick, and his father, Carl, on the family cotton farm in the early 1980s. When the Duncans decided to diversify into a wholesale vegetable operation, Arnott headed up vegetable production. After gaining experience, he decided to farm on his own. In 1987, he secured financing and started Sunfresh Farms by leasing various farm parcels totaling 2,000 acres.

Over the years, after marrying Kathleen, he began to phase out cotton to focus on vegetables until, by about 1995, all 2,000 acres were in fruits and vegetables. They also worked to lease contiguous properties, and today farm two square miles owned by two landowners.

About that time, Kathleen realized she was tired of sacrificing time with her kids to drive into downtown Phoenix every day to her job as an early education consultant. The couple also began to grow increasingly concerned about the negative connotations surrounding farming. “There is just a lot of misunderstanding,” Kathleen says. “Most of the farmers we know are incredible stewards of the land.”

**Focal Point of Operation —
Environmental/agricultural education**

In 1992, they combined their careers of farming and education. Their location amid suburban neighborhoods was ideal for reaching out. They planned an ambitious educational program, but didn't realize how quickly it would grow. "We never advertised, other than by word of mouth," says Kathleen, and in that first season, from October through June, 20,000 school chil-



The Duncans host thousands of children at their educational farm, which features exhibits about the soil and the importance of recycling water.

dren visited Duncan Family Farms.

Their instincts behind the educational venture have been proven true. "We hop on those buses every day and greet the kids, and ask, 'How many of you know where your food comes from?' They all say, 'The grocery store,'" Kathleen says.

At Duncan Farm, they are able to see most of what is grown — broccoli, red and green cabbage, red potatoes, watermelons, cantaloupes, specialty melons, lettuces, strawberries, peaches and more, about 400 acres of which is certified organic. When the chil-

dren leave the buses, they watch crews harvest the crops. Each child is allowed to pick and take home a bag of that day's crop, such as sweet corn or red potatoes.

Duncan Family Farms began to expand quickly. Reacting to demand, the Duncans planted 25 acres in pick-your-own produce, opened a farm bakery, offered wagon rides, created a petting zoo of donated 4-H animals, operated a small roadside produce stand on

weekends, offered parties at three birthday barnyards and even hosted weddings.

In 1992, they opened their farm for a one-day Pumpkin Festival, complete with bluegrass music, wagon rides, hot dogs and roasted corn. The festival now stretches over three weekends in October, with 37,000 attending in 1999. The 25-acre festival grounds include wagon rides through a giant pumpkin patch, a three-acre corn maze, a children's activity area, live entertainment, pumpkin-oriented refreshments, a petting zoo and train rides. When people seemed to want more, they put on a

Christmas Festival, a spring/Easter event and a June melon harvest.

The Duncans finally had had enough in June 2000 after eight very full seasons. "On top of everything else we have our 2,000-acre 'real' farm, Sunfresh Farms. That's our livelihood, that pays the bills," Kathleen says. "We felt the need to do fewer things and do them better."

They eliminated the pick-your-own garden, the farmstand and bakery, and all of the festivals except for the Pumpkin Festival, one of their most popular attractions. The Duncans now concentrate on improving their educational programs and tours. They built more interactive educational exhibits and converted the farmstand and bakery into a bug barn, where children learn about the roles of insects, such as bees and ladybugs, on a farm.

A "water-wise" maze runs through an area of about 100 feet by 100 feet and teaches children about desert areas and the importance of water. The children run into "dead ends" where they see depictions of water being wasted, including both agricultural and household scenes. When the children leave the maze, they are asked to talk about each of the times that water was wasted and what could have been done differently.

A recycling exhibit allows children to crawl through an earthworm tunnel where they can see how office paper is shredded and put into bins for the worms to convert into a soil amendment. The recycling message is taken home via instructions and brochures developed to teach the children how to make worm bins to dispose of their own paper waste.

In the summer of 2000, the earthworm tunnel exhibit was re-designed to teach kids about soil. The exhibit now appears like a

fallen tree with a giant root ball that has been uprooted. The children climb into the dark tunnel under the root ball. Throughout the tunnel, realistic carvings of animals and their burrows, worms, an underground view of plants and their roots, and a soil profile show children about soil in very visual ways.

Economics and Profitability

Sunfresh Farms subsidized the education programs of Duncan Family Farms in its first years. It soon became apparent that the Duncans needed to offset some of those costs by charging for the school bus tours. They began by charging \$1 per student and gradually increased the fee to the current \$4 because of increased costs and improvements.

“We collect from 95 percent of the kids,” says Kathleen. “We will never turn a group or a student away because they can’t pay.”

The Pumpkin Festival added a major source of funding to the educational programs. That revenue helps run the program and even allows for a small scholarship fund. Admission to the festival is \$4 and includes most activities.

Grant funding also has been important in establishing some of the recent educational exhibits. A grant from the state Department of Water Resources covered about half the cost of constructing the water-wise maze. A grant from the Arizona State Department of Environmental Quality (DEQ) provided some funds toward building the earthworm tunnel.

Environmental Benefits

The Duncans hope to improve the quality of the environment through educating children about water, soil, plants and insects, and how they are all natural resources to be conserved and used responsibly.

The Duncans practice what they preach in the operation of Sunfresh Farms. They use a holistic pest management approach that includes releasing hundreds of thousands of ladybugs and other beneficial insects each season, using ‘sticky traps’ to monitor pest populations, growing plants that provide a desirable environment for beneficial insects, and rotating crops.

There’s more. The farm is a release site for threatened barn owls that have been rescued and need to be relocated. The Duncans have established a Christmas tree re-planting program within the community, and plant a half-mile of trees each year for windbreaks. They established a composting program using about six truckloads of waste each day from a local horse track that they convert into compost. They have implemented an efficient irrigation system to recover and reuse water that runs off into their lined ditches. They plant grain sorghum and other “green manure” crops to reduce the need for synthetic fertilizers.

Community and Quality of Life Benefits

The Duncans have provided their family with the lifestyle they yearned for: both parents working at home with their children. Arnott and Kathleen are doing the type of work they love and their sons benefit, not only from having their presence, but also from the exposure to all of the educational and recreational activities.

The Duncans have invested in being good neighbors to their non-farming community. Every year, they line the farm roads with wood chips to minimize dust. They plant half a mile of fast-growing Elderica pine trees every year not only to cut down on wind erosion but also to provide a natural buffer between the farm and urban dwellers.

The Duncans wanted to find more ways to help the community and decided that feeding

the hungry fit well with their business of food production. They helped establish the Arizona Statewide Gleaning Program that has now donated more than five million pounds of fresh produce to Arizona food banks.

The Duncans have been widely recognized for their community support, receiving numerous awards for their entrepreneurship, educational efforts and environmental stewardship.

Transition Advice

Kathleen Duncan admits that the growth of Duncan Family Farms evolved too quickly. Instead, she would advise others to create and stick to a business plan.

One of their abandoned enterprises, the pick-your-own garden, was very popular with their customers, but became a financial burden because of its unpredictability. On a given weekend, customers ranged from 20 to 1,000. The Duncans offered up to 25 different U-pick crops, and according to Kathleen, should have focused on one crop with a huge draw.

“If we had to do it over again, we would specialize in one seasonal crop,” she says.

The Future

The Duncans plan to continue creating new and exciting ways to educate and entertain children about agriculture, with a goal of increasing yearly attendance from 20,000 to 40,000 children.

■ *Mary Friesen*

For more information:

Kathleen and Arnott Duncan
Duncan Family Farms & Sunfresh Farms
17203 West Indian School Road
Goodyear, AZ 85338-9209
(623) 853-9880
www.duncanfamilyfarms.com