

Farmer Considers Details Throughout Tomato Growing Season

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les, a full-time employee; and Cliff's father, Abram. The farm also manages a 200-sow farrow-to-finish operation.

But this time of year the family concentrates on growing, transplanting, and caring for the big cash crop, which Charles began four years ago.

"I started when I saw an ad in *Lancaster Farming* for tomato growers, and I called," he said. "I had thought about it over the years, something on the side to do."

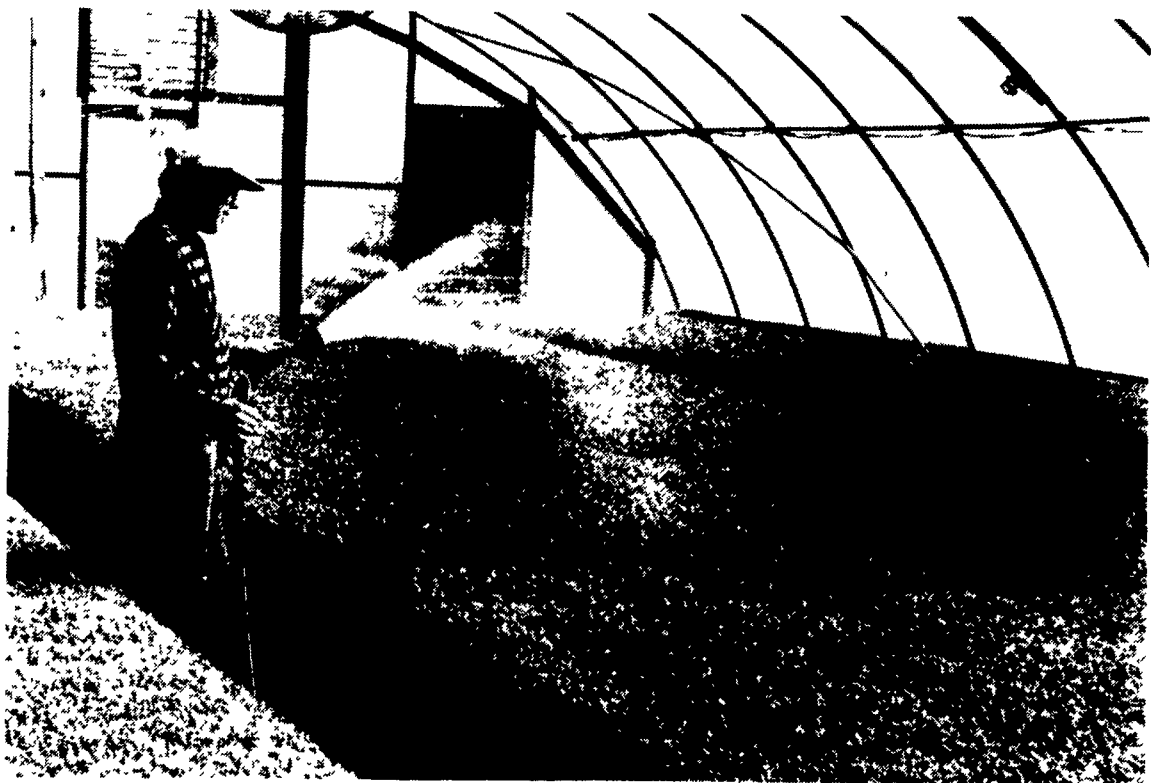
The first year, he purchased plants out of the South and planted 35 acres. But some of the plants were bad and the harvest wasn't up to expectations. The next year, Charles erected a greenhouse and seeded his own plants, transplanting them into 40 acres. This year, another greenhouse was constructed and 80 acres were planted.

Class 3 competition
Charles won the award for the

highest tomato yield in class 3 machine harvest competition for growers with 74 to 50 acres. According to information supplied by the Pennsylvania Vegetable Growers Association, Charles harvested 1,652 tons of usable fruit for Furman Foods, Northumberland, Pa., in addition to Violet Packing and Jordan Packing on 70 acres for a 23.6 tons per acre average yield.

Charles raises his own greenhouse transplants, which include Early Pear, US 68, Ohio 8245, Ohio 1810, Heinz 7151, and Heinz 1784. The varieties are mainly Italian-type, which are smaller than garden types and more solid to aid in transportation and canning.

Charles starts seeding in mid-March. A vacuum seeder drops the seeds through individual tubes into a flat that can hold 288 plants. When the plants reach 5 to 6 inches in height, they are transplanted. Last year, transplanting occurred



Cliff Charles waters half a million tomato transplants in one of the greenhouses on the farm. Charles was honored with a special tomato grower award recently at the Pennsylvania Vegetable Growers Conference in Hershey.



Crystal Charles, 11, left and brother Eric, 10 hold up flats containing plants that are ready to transplant.



Mark Charles examines the placement of seed on a special vacuum tray at planting. The tray is dropped into position at right, bottom, where tubes lead into the seed holders in the flat.

on April 23 — this year, Charles began transplanting on April 25.

Charles made improvements to a 3-row planter, which reduced the number of people needed to transplant the crop. Eight acres of tomatoes were transplanted on twin rows with 15-inch spacing between each, and 60-inch spacing between twins. Sixty-two acres were planted on 60-inch spacing between single rows with a 10-inch plant spacing.

Crop rotation

Charles used a three-year crop rotation which included corn, year 1; corn or barley and beans, year 2; and tomatoes, year 3.

Charles spread liquid hog manure from his swine operation in the fall at 15 tons per acre. At transplanting, liquid fertilizer was installed with the plant. After transplanting, Charles applied a liquid nitrogen sidedressing on the crop up to four weeks.

Weeds were controlled by cultivation and a preplant application of Tillam at 2.75 quarters per acre and Devrinol at 3 pounds per acre prior to transplanting. An application of Sencor at 0.5 pounds per acre was applied as needed to control escape weeds.

Diseases were controlled with a

7-10 day scheduled application of Bravo at 2 to 3 pints per acre. A foliar fertilizer went on with the fungicide. Insects, particularly the Colorado potato beetle, were controlled with Kryocide at 10 pounds per acre. Ethrel was applied at 4 pints per acre early. Charles said the beetles prefer the potato crops, and migrate off his land. "There's enough potatoes around, I think they head to the potato fields," he said.

Maximum red

Charles harvested from August 9 to September 5 of last year. He said he determines when to harvest by looking at the crop, and when "you can get the maximum red, that's when you harvest," he said. The machine harvest technique uproots the plants and vibrates the tomatoes free. About 10-11 workers hand-sort the ripe from the green tomatoes.

Although Charles obtained recognition for the yield, he said, "it wasn't that high of a yield. The yield we had this past year was our average yield the last four years," he said. "It's just that nobody else had as high a yield, I guess."

Last year, said Charles, they had higher tonnage laying in the field,

but with the wet weather late in the summer, they lost quite a few tons from decay. But it was growing and transplanting his own plants that helped increase the yield.

"If you start with a bad plant, you don't have a lot of potential there," he said.

Under contract

Charles said most tomatoes are grown under contract because of the risks involved.

"You don't have to go under contract, but it's sort of risky not to," he said. "If everyone has a good yield, you have an open market for tomatoes, and nobody wants them."

Charles said he enjoys the challenge of tomato farming. "It's a crop that, if you take care of details, it pays dividends," he said. "It's a high-management crop. After you do something for a number of years, you want to try something else to see if you can do it. It's a high risk crop... you don't just put it out and forget about it."

Charles said, "I think it's a total of everything. You can't work on one thing and forget another part. And then, even though we do everything right, we are still at the mercy of the weather."

Massachusetts Lifts Barriers To Interstate Milk Sales

SYRACUSE, N.Y. — The Commonwealth of Massachusetts recently announced it is amending a milk law that required inspection by Massachusetts officials of out-of-state dairy farms shipping milk into the commonwealth.

This change is the direct result of a complaint filed three years ago against the Commonwealth of Massachusetts by Dairylea Cooperative Inc.

"We are extremely pleased by the outcome of this matter," said Clyde E. Rutherford, president of Dairylea. "The New York State Attorney General's Office and the New York State Department of Agriculture and Markets have worked diligently on behalf of New York dairy farmers to ease restrictions on the flow of milk into Massachusetts."

In filing the 1988 complaint with the Department of Agriculture and Markets, Dairylea charged that, at the time, both Con-

necticut and Massachusetts had unfair regulatory practices that hindered the marketing of milk produced in New York.

The complaint centered around regulations that prohibit New York dairy farmers from selling milk in either of the two states unless their farms pass inspections by Connecticut or Massachusetts officials, even though the farms are fully inspected by New York officials.

As a result of the complaint, Connecticut announced in late 1990 it had amended its milk laws to remove barriers to the sale of out-of-state milk in that state. All other states in the Northeast honor inspections performed by officials in the farmer's own state.

"Complying with Massachusetts regulations was not only burdensome to our members, but also represented a significant cost to Dairylea in terms of field personnel time and test expenses," Rutherford said.

Dairylea members repeatedly voiced their concerns about these additional inspections and expenses in the form of resolutions approved at the cooperative's past annual meetings. The cooperative responded by exploring channels for alleviating the problem.

"Dairylea believes that a cooperative has the responsibility to be a strong and effective voice for its members," Rutherford said.

Dairylea, a Syracuse-based dairy cooperative with 2,300 farmer members throughout the Northeast, participates in a milk marketing network stretching from Maine to Maryland to Ohio.

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