

ic environment

Bob and Dawn Betts of Westfield, N.Y.

Bob and Dawn operate as a team and are considered to have one of the most progressive operations in the area with one of the lowest production costs per ton.

They have worked to mechanize every possible task as a way of reducing labor costs. For the past four years, they have been working with researchers from Cornell University and the University of Arkansas, a local manufacturer and members of the National staff to mechanize pruning operations. While mechanized pruning may not be the answer for every grower, Bob and Dawn have been successful at applying mechanized pruning on their 200-acre farm. A mechanical pruner will do only about 85% of the pruning job, with the remainder of the follow-up pruning done by Bob, Dawn and one hired laborer.

"This mechanized pruning approach has enabled us to maintain good consistent yields of ripe fruit over the past four years, and with the hand follow-up, we are able to look at each vine on our 200 acres enabling us to reduce our out-of-pocket cash pruning costs by over 50%," explains Bob.

Bob and Dawn view mechanized pruning as one part of a system that includes crop size evaluations during the growing season and crop thinning with their grape harvester when necessary.

"We believe in the system approach that enables us to manage the crop over the entire season to meet any season's growing conditions rather than the one-shot approach with hand pruning," says Dawn.

The Betts also allow researchers to conduct research projects on their farm, and currently they have nitrogen and mechanized pruning experiments underway.

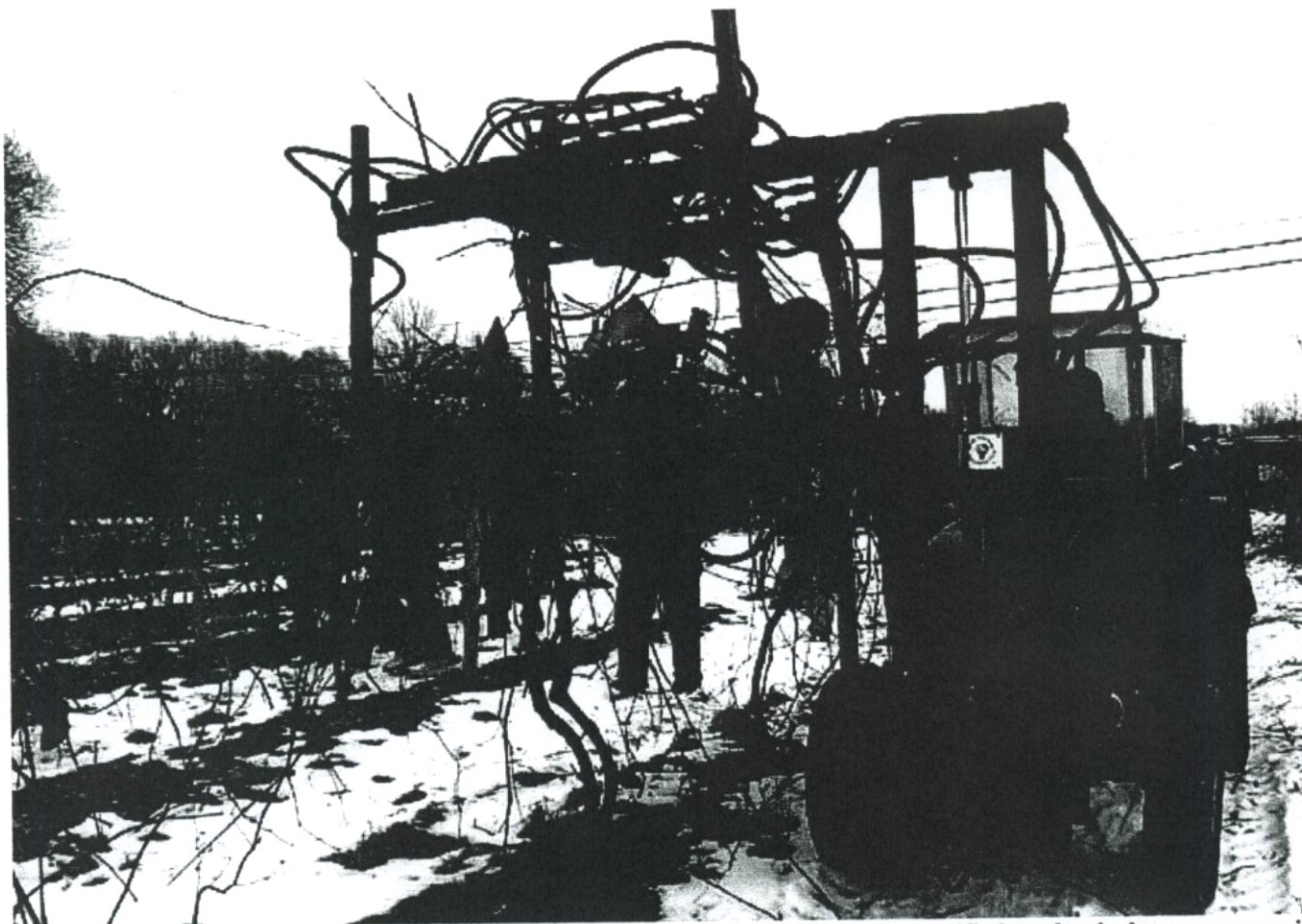
"The results of these experiments have enabled us to directly view results that can be applied to our farm. For example, we have learned from the nitrogen experiment that we can reduce our nitrogen applications thereby helping us reduce our production cost."

For more information on any of the farming techniques discussed, you can reach me through the website by clicking on the "Contact Us" button, or contact me directly at tdavenport@welchs.com or call 716-326-5291. 🍇



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Co-op News
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Westfield Grape Pruners Display Modified Equipment



Bob Betts of Persons Road, Westfield, demonstrates the operation and result of a modified mechanical grape pruner in his vineyards Tuesday afternoon in a program sponsored by the National Grape Cooperative Association and Cornell Cooperative Extension.

P-J photo by Joe R. Liuzzo

By MANLEY J. ANDERSON

WESTFIELD — A discussion and demonstration of mechanical grape pruners at the Bob and Dawn Betts farm and vineyard on Persons Road attracted such a large group of growers that not all of them could squeeze into the barn on the premises.

More than 100 people crowded into the building with another 35 outside. Dawn Betts explained the two machines that were demonstrated.

One is made and sold by Rammelt & Sons of Westfield for \$25,500 with the second unit as the only one modified by the Betts, used by them for three years and costing about \$1,500 more.

Mrs. Betts told her outdoor audience, "Nobody likes the way our grapes look, but they're looking We like the reduced labor costs."

She estimated that without their machine they would have about \$40,000 a year in trimming costs in their 189 acres of vineyards and that with the mechanism the cost is about \$10,000. "And we also have our grapes tied," Mrs. Betts said.

She compared the stage of mechanical pruners at about the same level as the early grape harvesters that have seen numerous improvements since they were introduced.

Mrs. Betts said the pruning machines require frequent adjustment for best results and take about a day each to mount and remove them from the tractor. "It's so heavy you need a forklift," she said.

Thomas G. Davenport, director of viticultural research and regulatory compliance at National Grape Cooperative Association, said the machines need to be adjusted to specific vineyards. He said an average of 15 to 20 percent hand trimming normally is necessary after the mechanical procedure. "It does take vines away," Mrs. Betts said of the machine. "It can cut vines off just like a chain saw but it saves a lot of time and money. We can trim an acre an hour."

Mrs. Betts said their objective is to trim about 120 buds per vine and not 200 so they do not have to thin every year. She said the goal is to have about the same crop average yearly and she believes mechanical pruning is more consistent than hand trimming in reaching this objective.

The modified machine is a result of making adaptations to the original equipment to meet their needs, she said.

"Rammelt makes a standard machine and we've modified it," she said. "We're just farmers. That's all we are."

Indoors, the welcome on behalf of National Grape as primary meeting sponsor was by Jim Joy, its area manager, with Davenport outlining the history of mechanical pruning, the Betts contribution to it and hand trimming followup.

"By and large, with Betts' method you don't have to do any mechanical thinning," said Barry Shaffer, Cornell Cooperative Extension farm business management specialist with the Lake Erie Regional Grape Program.

He said the Betts modified machine is seen as producing the closest thing to a hand-pruned vineyard. Shaffer said a grower panel study of results from mechanized and hand pruning of vineyards concluded that on average the mechanical approach can result in savings of \$60 an acre on pruning costs while realizing \$200 more per acre in production returns.

"They've been doing well in any way you look at labor efficiency," he said of the Betts' operation. Shaffer said the couple has been involved in a grape study program since 1993. "They're producing a ton of grapes cheaper," he said, "and do most of the work themselves."

Also on the program was Terry Bates, a Cornell University viticulture researcher based in Fredonia, with copies of his findings on grape pruning systems distributed to meeting attendees.

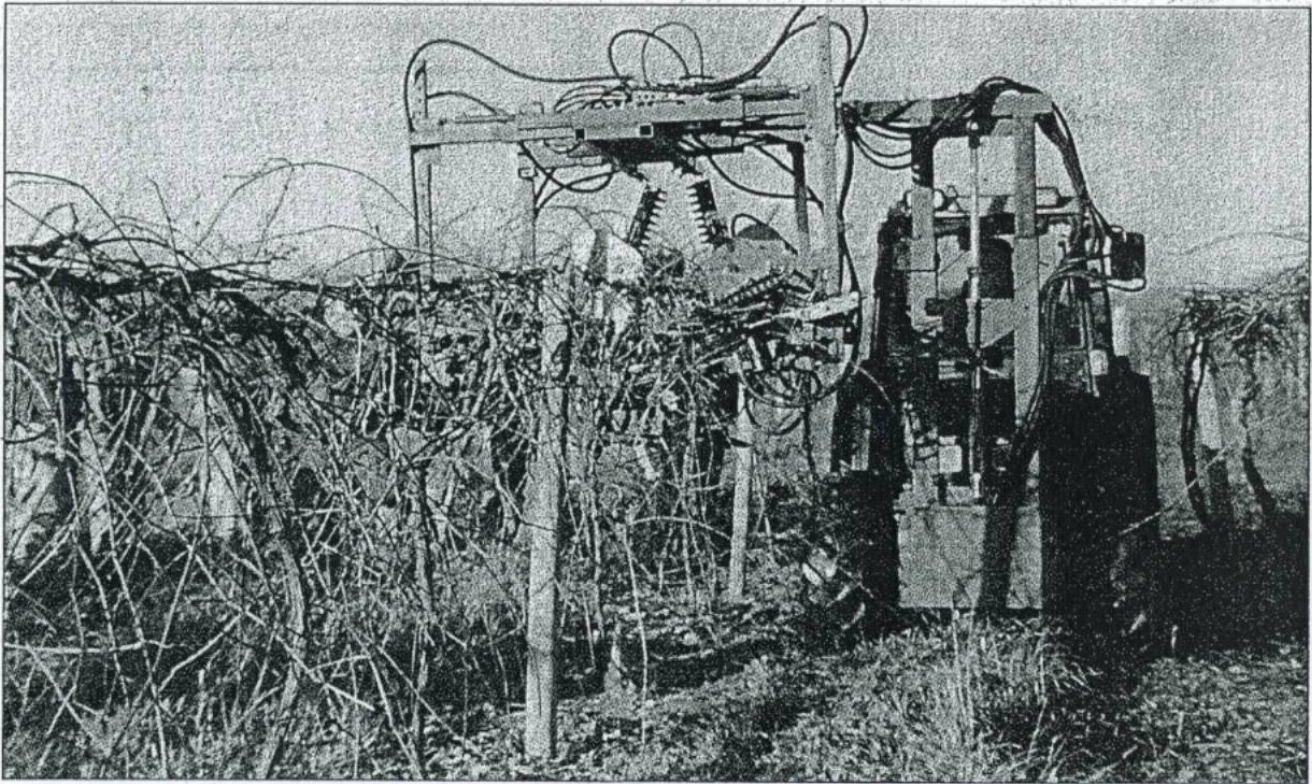
Shaffer said regional grape program researchers and extension employees joined with National Grape as program sponsors.

He said indications were that attendees came from the area as well as from Ontario, Ohio, Pennsylvania and the Finger Lakes Region.

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OBSERVER Photo by Amy B. Lewis

Grape farmers saw what the new mechanical grape pruning machine can do during a demonstration in Hanover.

Farm futures

Mechanical grape pruning machine makes an appearance in Hanover

By **AMY B. LEWIS**
OBSERVER Staff Writer

HANOVER — It's a sign of the times for area grape farmers, a mechanical grape pruning machine that will cut skilled labor down and increase productivity on grape farms.

The machine is mounted on the front of a tractor and driven down the rows, quickly cutting off one

year and older grape vines so that the upcoming crop will have less wood and hopefully more fruit during the next grape season.

Jim Joy of the National Grape Cooperative Inc. in Westfield, was excited to show off the new machine.

"It won't replace real trimmers, but it will help with the crop," said Joy.

After using the machine hand pruning is still required. "All of our labor is green card immigrants, and if something happened and they had to leave the county, we would be left with no one to do the work," said Joy. "No one knows how to do it anymore."

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Pruning

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Terry Bates of the Cornell Cooperative Extension in Fredonia has done some research on the machine as well, and Bob and Dawn Betts of Westfield have been using the machine on their grape farm and have found that it helps in their grape fields. They have been able to trim more grapes in a shorter amount of time, spraying of the fruit is less frequent, and it has increased vineyard efficiency.

"The machine can't do it all, the grapes still need to be hand pruned, but it's very efficient," said Betts. The Betts have used the machine on their farm and have adjusted its many little cutters to their needs.

"Its a good thing it is adjustable, then we can make it work the way we want to." added Betts. "It takes a lot of time to learn, but it changes easily," he said.

Dawn Betts said she spends at least an hour a day out in the field with her husband learning how to use the machine, and said "it does take a lot of time to learn."

She also does trimming after the pruning machine goes down the row, and suggested to farmers who do trim to get rid of the little trimmers and buy a pair or pruner with long handles, it makes the job much easier and quicker. The couple also claim that cutting brush between rows has been cut way down because the machine chops the vines into tiny pieces.

"It just makes the job so much easier, it just takes time and it takes practice to learn how to use it."

"There is a lot of potential with this machine, and no two farms would run it the same," says Joy. "They have to adapt to the situation."

Thomas G. Davenport, Director of Viticulture at the National Grape Cooperative, Inc., said, in a written communication, that "We see continual decline in both the skill and availability of pruning labor while the cost continues to increase. In addition, we face an increased regulatory environment that may also impact the supply and cost of pruning labor in the near future," said Davenport. He added that through research, they are working toward providing farmers with tools that need to manipulate their crop potential throughout any season to maximize yields of mature grapes. This includes using the pruning machine.

In a nut shell, this pruning machine makes the job more effective, leaving vines needed for good spring growth, and hopefully a bigger, heavier grape crop in the future.

Through research, it has shown that farmers can save money each season by adding mechanical pruning to their grape farming method. It is also suggested that farmers approach mechanical pruning a little at a time, because if it isn't working for a particular farm, there will be a long way to bounce back from. If the process doesn't fit the need, it could destroy the entire farm. It should always be used sparingly.

"It will be interesting to see how far the machine goes," said Joy. "It will be a lot of trial and error."

Farmers who need additional information can contact Jim Joy or Thomas G. Davenport at the National Grape Cooperative Inc. at 326-5200.

Comments can be sent to editorial@observertoday.com