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3-1-1976

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David R. Little
Bird Control Committee, Monterey County Grape Growers Association

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LOCAL PROGRAM OF BIRD DAMAGE CONTROL IN SALINAS VALLEY

DAVID R. LITTLE, Chairman, Bird Control Committee, Monterey County Grape Growers Association, P.O. Box 1010, Gonzales, California 93926

On behalf of the Monterey County Grape Growers Association, I wish to thank you for inviting us here and giving us a chance to tell the world, so to speak, about our local program of bird control: how we got there, where we are, and where we want to go.

First, let me give you a little history of the grape industry in our county.

In the early 1960's, Mirassou, Paul Masson, and Wente Bros, began to establish a large part of their premium varietal wine grapes in and around the two towns of Soledad and Greenfield, approximately 40 miles inland from Monterey. They brought with them their highly developed expertise in grape growing along with new innovations including overhead sprinkler irrigation. I need only mention the high calibre personnel they brought with them, who understood these new methods of farming and put them to economical use. Where, only weeks and months before, cattle were grazing or produce was being harvested, there were now rows of new grape vines planted with the combined knowledge of many previous generations.

Their vines grew and flourished in this almost perfect climate. What the winter rains did not give to the vine, they added through their modern irrigation systems. What nutrients were lacking, they applied through the most modern methods available. Many problems which were encountered were solved by organizing and cooperating with resource agencies to develop practical solutions.

Then, 1970-1974 brought the grape planting boom in Monterey County. Large and small companies as well as private individuals discovered what Drs. Amerine and Winkler of the University of California at Davis, Paul Masson, Mirassou, and Wente Bros, had known for years--that the Salinas Valley in Monterey County contained the combination of climate, soil, and water conditions necessary for the production of premium varietal wine grapes.

These new arrivals brought with them their expertise, high calibre personnel, and modern methods of farming. They all had one goal--to profitably produce premium varietal wine.

The acreage jumped from 2,000 acres to over 37,000 acres in approximately 4 years.

These growers all knew what the value of a dollar was. To control this dollar, they incorporated the most modern methods of computer cost accounting, enabling them to control every cent which was spent on every acre. Their methods of farming incorporated the use of fast, modern equipment which could cover vast acreages in 1/2 the time of only a decade before. In short, every method was utilized to decrease the cost of growing grapes and still produce a quality wine.

Starlings and linnets were a recognized economical problem to only the few growers who already had producing vines in the county. We newcomers were so busy in development that we failed to recognize this danger until August, 1974, at which time a few of us noticed some large flocks of blackbirds flying through the vineyards. After closer inspection, we finally connected the shriveled cluster and naked stems to these two culprits. A quick check with established growers revealed that they had been encountering this problem for a few years but felt that they were keeping their head above water, that is until their new neighbors' vines came into production. They had realistically thought that with all the new acreage, these pests would disperse over a large area and become less bothersome.

As it seems to have turned out, the more acreage, the more birds. The growers not only brought modern farming methods but birds as well.

After talking to most local growers, it was decided that if this problem was on the increase, we should see our county Agricultural Commissioner and ask him to please solve our problem. Commissioner Nutter was very receptive to our request but stated that as the county had only 2 starling traps at the time, he doubted if they could realistically do us much good.

He did suggest that we, including the Commissioner, contact the University of California and persons with the Department of Food and Agriculture who had been studying this problem for years in the San Joaquin Valley. At a subsequent meeting in August, 1974, with the State Department of Food and Agriculture, we were informed that the expertise in this area as well as state budgeted funds of $50,000 per year for a starling study lay with the University of California at Davis and it was suggested that we meet with them.

In preparing for the University of California meeting, we found some very startling facts and figures.

First, we investigated control methods used by individual growers. These consisted of:

1. Direct contact with the individual bird by shotgun.

2. Various methods of scaring by sound producing devices including music and even beating a tin pan with a stick, and

3. A few linnet poison trays and starling traps.

Two growers even planted a preferred grain crop.

We recognized that those present methods could be used on all the developed acreage with an expanded and grower directed program.

Next, we brought together our collective costs to project what growers spent in using these control methods. It was found that $15-00 per acre was the average, with ranges from $10 to $23-00, depending upon the amount of control.

Lastly, we found that we had no damage assessment data; or conversely, what effect our control measures had on income. We, therefore, postulized income loss on a percentage loss to birds basis, using 1%, 5%, and 10%. We used a standard yield of 3.7 tons per acre and an average of $300 per ton selling price. There were 9,052 acres producing in 1974 and using the foregoing figures of 1% loss, $300 per ton and $15.00 per acre control, we arrived at a total loss to the industry that year of $236,631.00 or $26.00 per acre. This figure was enough to culturally manage 364 acres of vineyard for a full year. Out of curiosity, we went one step further and tried to predict the losses for 1977. The producing acreage by then would be 34,415 and control costs approximately $20.00 per acre. We found by simple multiplication that the wine grape industry in Monterey County would suffer a $1,834,300 loss at 1% damage, $2,598,400 loss at 5%, and $4,509,365 loss at 10% damage.

Needless to say, Ladies and Gentlemen, we were startled out of our wits.

1974 Cost

Feed Yards	Head	Feed Loss	Loss/Mo.	Control '73-74 Cost
Salinas Valley Feed Yard	9,000	2 oz/bird/day	30¢/bird/mo.	$13,200
Fat City	33,000	2 oz/bird/day	30¢/bird/mo.	$15,000
			Totals	$28,200

1974

Other Loss Ratios	Ton/Acre	% Loss	Tons Loss	300.00/Ton	Control $15.00/A	Totals
	3.7	1.0%	336.67	101,001	135,630	236,631

1977 Projection

Other Loss Ratios	Ton/Acre	% Loss	Tons Loss	300.00/Ton	Control $20.00/A	Totals
	3.7	.5%	637	191,100	688,300	879,400
	3.7	1.0%	1273.36	383,006	688,300	1,070,306
	3.7	3.0%	3320	1,146,000	688,300	1,834,300
	3.7	5.0%	6367	1,910,100	688,300	2,598,400
	3.7	10.0%	12734	3,820,055	688,300	4,508,355

We went over our figures, questioning what we had done, how we arrived at these figures and why. The answers were always the same, 1% loss equaled 74 lbs. per acre, 5% loss =370 lbs. per acre, and 10% loss equaled 740 lbs. per acre.

These figures were taken back to the growers who decided to pursue the problem with all haste. "Let's meet with all of the agencies and researchers who have worked with this bird problem elsewhere and adapt their methods here," we said.

The subsequent December, 1974, meeting provided, I think, the largest number of knowledgeable men ever assembled for bird predation control in Monterey County. The results were gratifying in that all who were there offered the help of their large departments and staffs when we were ready to call upon them.

We met subsequently many times to organize and actuate a control program. We knew there were no easy solutions but we optimistically expected to use all of the committed resources to write a guide for a control program. However, the resources that we were dependent upon turned out to be much less than we anticipated; we found no new, useful information was available. We found some work was done but not published. We also learned of some seemingly inappropriate and inadequate programs underway. We were desperate to find practical inputs to our program.

In mid 1975, we finally concluded, that if we were to have our problem solved, the organization of a control plan must come from us, the ultimate benefactors. We, therefore, decided to hire our own personnel who could coordinate the present control methods with all growers and carry on organized field research pointing at new and better methods of animal damage control.

Due to the difficulties of an organization such as the Monterey County Grape Growers, employing an individual who would need the resources of the State and Federal government, our county Agricultural Commissioner offered the canopy of the Monterey County Agricultural Department, with the growers paying the bill. By the 1975 harvest, over $15,000 in grower assessments were in, and a bird control program director for Monterey County was hired on a permanent basis.

So much for history, let's assess where we are today.

First, Bird Control.

We feel that our local program (along with the County Ag. Dept.) has effectively increased the proficiency in vineyard application of bird control.

The number and placement of trays and traps has increased 100 fold, but the follow-through and consequent removal of an economical number of predators leaves much room for improvement.

Strategically placed sound equipment along with the mobile sound devices and pyrotechniques are on the increase, and more vineyard employees are assigned to the bird control activity.

The organization and mobilization of trapping equipment supplied to the county by growers is at an all time high.

Most important is the grower organization and the constant communication provided by the new program director hired through the county.

Second, Present and Future Research.

Few individuals from those in all academia have shown enough interest in our problem to come into our area and observe for themselves the vast flocks in our fields and the naked vines they leave behind.

It's a start, Gentlemen, but it leaves a large question in our minds, -- "Is that all there is?"

After all, there is just so much sophistication that can be built into a bird trap or poison tray, just so many partially effective sound effects, and just so many effective variations to the pyrotechnique devices.

There are no registered chemicals known to us at this time that are effective in baiting or repelling starlings.

There is just so much economical loss a grower can absorb from the recent inflation and price depression before he must remove himself from the fight. With all this expertise in farming and accompanying independence, we are still in this together. The recognition of interdependence is vital for survival.

This interdependence includes you for a $4,500,000 loss affects you too.

We growers feel there are factors that could contribute to our demise.

We have found that vertebrate damage control is not considered a valid objective in wildlife management. The topic is unpopular politically and socially due to emotion and, with rare exceptions, vertebrate animal damage and control methodology are poorly covered at best by university curricula.

We feel the academic community must involve itself with these problems more directly and come to grips with them at the field level. All groups need to recognize the inadequacy of the current research program. We must re-evaluate the situation and make changes as new priorities are set.

We are all in business to profit from our efforts. We have isolated a problem which deters from profitability. We have determined that it is worth investing additional resources.

We would like professionals in vertebrate pest control management to consider our criticisms and to plan their research programs with the final field application in mind. Invest time and funds where they will return the greatest benefits.