

## **Vineyard Views**

**by Cliff Ohmart**

What causes us to change the way we farm? I spend a lot of time thinking about the many answers to this question because a big part of my job is encouraging winegrape growers to adopt sustainable farming practices. I was also very interested in this question while working as a pest control advisor (PCA) for growers farming orchard crops and encouraging them to adopt integrated pest management practices on their farms. Government agencies are very interested in the answers to this question, too, because when they develop new regulations they often develop programs to encourage growers to comply with these regulations. Environmental organizations seek answers to this question in order to figure out how best to convince growers to farm in ways that have fewer adverse environmental impacts. I have developed some answers to this important question as a result of working with growers over the past several years and would like to present a few of them here.

Incentives play a key role in changing farming practices and financial gain is the most obvious and compelling one. Will a new practice reduce management costs and/or increase the value of the crop? Increased crop value comes in many forms, such as through higher quality, less pest damage, increased yield or increased unit price. The first questions many growers ask when presented with a new practice are “How much does it cost?” and “Will it make me more money?” These are very clear and logical questions but the answers, unfortunately, can be elusive and may not be convincing enough to result in adoption of the new practice. For example, when I was a PCA trying to convince growers to subscribe to my services I would present them with clear evidence from past work that some of my pest management strategies would reduce their costs and/or improve the quality of their crop. However, this economic argument would only sway a certain small percentage. Most were at best skeptical and at worst dismissive. It seemed that many growers wanted an ironclad guarantee of economic success before committing to something new. What I found interesting and frustrating was that good data showing success was not be enough to overcome their aversion to risk. While this is understandable because of the amount of money at stake in farming, risk aversion can really slow down the process of change.

Using economics as the main factor in deciding whether or not to implement a new sustainable farming practice is problematical in many cases due to the lack of good economic data on the costs and savings of this practice compared with those of previous practices. For example, consider growing a permanent cover crop in a vineyard vs. disking the vineyard floor. Growers that grow permanent cover crops say they do so for one or more of the following reasons: improved winegrape quality, increased soil water penetration, improved soil quality, reduced dust, provision of refuges for pest natural enemies, lower fuel consumption as a result of mowing one or two times vs. disking several times, and lower soil compaction due to fewer passes through the vineyard with the tractor. On the other hand many growers say they will not grow permanent cover crops for one or more of the following reasons: yields are reduced, vines are devigorated, water use is increased, fertilizer use is increased, gopher problems increase, and the

vineyard floor becomes too rough. Good economic data exists for some of these positive or negative effects when considered singly, such as the cost of disking vs. mowing, reduced yields, and improved winegrape quality. Unfortunately there is little or no data on the other important effects such as the costs of increased soil compaction, increased dust, burning of fossil fuels or the savings due to reduced soil compaction, improved soil quality, or increased soil water penetration. There is also no data when all of these effects are considered together. While economics may be cited as the driving factor in whether or not to implement a new sustainable practice, in many cases, the reality is that growers are motivated by subjective observations because good economic data are not available.

There are several other kinds of economically based incentives. For example, agency programs that pay growers to implement certain practices, conservation easements, mitigation banks, and certification programs that result in growers receiving a premium for their crop or increased sales (e.g. organic farming). While all of these programs have caused some growers to adopt new practices none of them have provided enough incentives to influence large numbers of growers. The financial incentive offered by organic farming has influenced a larger number of growers than any of the other incentives mentioned above. However, the percentage of growers using organic methods is still small compared to those using other farming methods. Why have the above mentioned incentive programs not affected more growers? The reasons are different for each type of incentive but they seem to be related to the fact that the amount of money saved or gained by these incentives is not large enough to appeal to the average grower or to overcome their aversion to risk.

Some growers have changed their farming practices as a result of incentives that are not directly economically based. For example, the increase in environmental and safety regulations have stimulated some growers to adopt sustainable practices such as reduced-risk pest management practices, use of more efficient farming equipment, and the installation of low-volume irrigation systems. Some might argue that it is a stretch to label regulatory issues as incentives! Nevertheless, many of these growers are not just adopting practices in order to meet compliance standards but are going beyond compliance with the assumption that these regulations are only going to be more rigorous in the future. In the process they feel like they have become better farmers.

Other incentives appeal to a grower's sense of ethics. In other words "doing the right thing, in the right way, for the right reasons." Self satisfaction seems to be the driving force behind these incentives. It is difficult to describe the process of how growers reach the point where they are responsive to this kind of incentive other than to say that they have undergone a 'mind shift'. For these growers economics is not the first thing cited as a reason for changing farming practices. More often they say that they adopt a new practice because it is the right way to farm.

Most growers want to become better farmers. What differs among growers is their definition of what makes a better farmer. For example, some feel that making more money makes them better farmers, others feel that reducing pesticide use makes them

better farmers, while others feel that improving wildlife habitat makes them better farmers and many feel it is a combination of many factors. Moreover, government agencies, universities, environmental groups, equipment manufacturers and chemical companies have their own opinions about what makes better farmers. They each have incentive programs to encourage growers to adopt their views. So far it seems that equipment manufacturers and chemical companies have had the most success convincing growers of their definition of what makes a better farmer.

It is important to recognize that the grower community is made up of individuals that fall on a continuum from those who farm very traditionally to those farming very progressively. One type of incentive is going to appeal to only a narrow range on this continuum because different growers are motivated differently. If the goal is to have area-wide adoption of a new practice or practices developing a range of different types of incentives to appeal to a range of growers is necessary.

When developing incentives to bring about change in farming practices or when thinking about what causes growers to change the way they farm it is important to recognize that most think that they are 'doing the right thing' on their farms already. Growers don't get up in the morning and ask themselves "What bad farming practices can I use today?" Changing someone's practices when they already think they are doing the right thing is challenging. "If it ain't broke, don't fix it" is a compelling argument to many people. However, it is important to realize that when it comes to sustainable farming and quality winegrape growing there is always room for improvement. Becoming a better farmer is a never-ending process. If you have any thoughts on what motivates you to change the way you farm it would be great to hear from you. I can be reached at [cliff@lodiwine.com](mailto:cliff@lodiwine.com).