

Cost Containment Considerations in Almond Production

Joe Connell, UC Farm Advisor, Butte County

Periodically, almond prices drop dramatically. Production costs, both fixed and variable, remain high while yield may be quite variable as well. Growers with low production or high debt service costs are facing the most imminent and serious economic crisis. The development and maintenance of high-producing orchards is very important; without this, cutting costs will have little effect.

The following is a summary of considerations to reflect on during this financial squeeze. Specific areas to examine for savings:

- 1) Pest management. Monitor to determine the need for insecticide sprays. Disease control sprays must be applied to prevent problems before they occur. This is especially true of brown rot, anthracnose, scab and leaf blight. Sprays for shothole can be timed by monitoring closely for the presence of sporodoccia in leaf lesions. Other more serious diseases can override this. Spray rigs should be properly calibrated for conditions in each orchard block. Weed sprayers and orchard sprayers with sensors to turn applications on only in the presence of a target have become more reliable. Substantial savings in both material and refill time can be achieved without the loss of efficacy. Pesticides are costly. Be accurate and timely with your applications. Apply following labels and use only those materials at rates that are actually needed to control the target pest. For NOW control, there's no substitute for cleaning up over-wintering mummies left in the trees.
- 2) Pruning in mature almond trees should remove dead wood and stimulate growth of new fruitwood. Young trees are trained for strength to avoid future losses. Keeping these considerations in mind, some pruning could be skipped in the short run to reduce costs without reducing future production. Pruning in spring or early fall to remove dead or diseased limbs is an important part of anthracnose management and should be done if this disease is a problem.
- 3) Pollination. Bees are absolutely essential for setting an economic almond crop. Try to rent strong, full-strength (8 frame), healthy colonies. Work with your beekeeper to make sure colonies are ready to go to work at the time of delivery. They should have an active brood nest that requires pollen when bloom begins. Reducing colony numbers is false economy. Use a signed contract--it's a good way of doing business.
- 4) Weed control is essential to minimize costs. Non-tillage with strip weed control is an efficient system. Save by eliminating cosmetic mowing, minimize strip herbicide costs. Low rate residual middles management helps control summer weeds (i.e. purslane), it's roughly equivalent in cost to mowing, but, saves time by reducing trips through the field. In your farming operation, would this approach result in some savings? What can be done to reduce your tractor hours?
- 5) Nutrition needs of the trees are important. Identify present levels through tissue (leaf) analysis. In purchasing fertilizers, buy simple forms. Generally, for the short run, the cheapest applied material is satisfactory. Apply amounts that are actually needed; excessive use or special additives will not guarantee better crops. Apply potassium in maintenance amounts as actually needed. Nitrogen rates may be reduced for a single year without undue growth reduction, provided trees are mature, on deep soil, and otherwise healthy. Know how much nitrogen you are applying in your irrigation water. Keep an eye on zinc leaf levels.
- 6) Irrigation costs and application efficiency may be improved by having your pump tested, application rate checked, fixing leaks in the ditch or pipelines, using off-peak power, converting to diesel if hours of annual operation are great enough, and using surface water if available. Using less water may not be an economic answer, but improving efficiency will help. If water must be reduced due to availability or cost considerations be sure to use a controlled deficit irrigation strategy to minimize negative effects.
- 7) Equipment is necessary, expensive, and sometimes under used. Be sure it's in good repair. Take a look at renting or leasing instead of buying. How about substituting a custom operator for ownership? Perhaps a machinery partnership with neighbors would be an economic advantage.
- 8) Trees in commercial orchards are not sacred; they are simply a means to your economic well being. Marginal trees or low producing orchards may be incapable of producing a profitable crop regardless of management practices, and, should be considered for removal. Do not depend on prices going back up to compensate for low production.

Know where your costs are and what your alternatives are. Spend more time walking your orchard. Gather information and shop for the best buys and services, *then*, buy only what you really need!

In addition, the suggestions listed below may be of help on a one-season or short-term basis. Each grower's situation involves an individual set of economic and production circumstances; therefore, only general considerations are suggested. It seems to me that developing information on your own individual current costs to produce and the general economic status of the orchard operation should be the first approach to cost management. You must know accurately where you stand financially. Listed below are six areas, which can help develop the needed information.

A) Annual Preharvest and Harvest Costs

1. Cost studies developed by farm advisors may be a useful outline.
2. Develop costs from current records and receipts. Separate out items as much as possible; i.e., if several materials are used in a tank mix for pest control, list cost of each material.
3. Separate labor, equipment, materials, and custom costs.

B) Cash Flow

1. Utilizing information from your preharvest and harvest costs, compute costs by item and amount for each month. Set up a ledger with a list of cost items down the page and months across the page. This gives you an idea of when your periods of greatest and least expenditures occur. Also, note months of crop payments.

C) Capital Inventory

1. List land, equipment, irrigation facilities, buildings, and trees.
2. Age, value, annual depreciation where applicable should be noted.
3. Separate out major equipment for purpose of repair, possible sale, or replacement.
4. Your bookkeeper or accountant can help in developing this information.

D) Net Worth Statement

1. A net worth statement will be necessary if you are faced with borrowing additional monies or refinancing present debts.
2. Your bookkeeper or accountant can assist in preparation of this document.

E) Orchard Map

1. Map your orchard by row and trees.
2. Orchards should be divided into areas for a more localized evaluation.
3. Note replants by age, marginal areas, and production.
4. Include irrigation system layout to identify convenient management blocks.
5. Note which blocks are a drain on the operation, which will grow out of the problem, which blocks won't.

F) Develop a Budget

1. Materials and services needed should be evaluated. Critical quantities and services should be noted and shop for best possible price and quality.
2. List total dollar needs. How does this compare with money available?
3. Adjust needs to ability to pay (ability to pay includes money in bank as well as potential income, loans, and other credit sources).

All of the above should give you an in-depth idea of your economic situation. Other management considerations which may result in improving your economic situation could include: lease termination on low-producing orchards, selling off part of your orchard, refinancing in order to lower payments, taking on custom work, and perhaps off-the-farm employment.

It is almost impossible to make accurate economic-management decisions without a clear picture of your present situation. The more accurate and in-depth your information, the clearer your decision-making will be. As indicated earlier, there is no simple, single answer for everyone. Almond growers have had hard and good times before. Times *will* be better again!