Palo Verde Land Fallowing

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Project Outline

On August 1, 1992, 63 Palo Verde area growers engaged in a water contract with the Metropolitan Water District (MWD). Payment was computed based on the 40 year valley-wide average of 4.6 acre feet per acre. MWD assessed the value of each acre foot of water at $135.00. Five payments over 2 years will result in a total revenue of $1,242.00 per acre. The program was voluntary, however, no grower was allowed to submit more than 25% of their total acres. Out of 93,000 acres, 20,215 acres were fallowed.

Program Costs

Water reimbursement to Palo Verde Irrigation District amounted to $90.00 per acre ($45.00/year). This standard annual charge for water is paid by all growers in the district for operations and delivery. Due to the need for funds to continue maintenance and other operations, the district continued to bill the standard rate for the fallowed ground despite the fact that no water could be delivered to the property at any time during the program.

Weed control was the responsibility of the grower. Various methods were used to minimize this cost including herbicide, plowing, chiseling, and discing. Heavy winter rains during the 92-93 season germinated an unusual abundance of weeds resulting in more costs for control. Some farmers felt that herbicides such as 24D, Eptam, Paraquat, and Diquat successfully killed residual crops as well as weeds, while the dry stubble prevented wind erosion. Other farmers believed moist plowing conditions resulted in large clods which in turn did not allow weeds to continue to germinate as rapidly as fields that were disced or sprayed. Despite the rains, all the farmers agreed that after the first year, weed control did not cost as much as initially expected. Average 2 year weed control is estimated between $100.00-$125.00 per acre. Proper weed control is monitored periodically by infrared satellite photos. No violations have occurred thus far for lack of weed control.

Another cost associated with the program was revenue sharing with the landowner. Different arrangements were made between the farmer and lessor. Some farmers agreed to split all revenue and expenses from the program. Other landowners expected all the revenue from the program but gave the farmer free rent.

Other unknown costs and revenues must be monitored once the program is complete. Costs could include controlling increased salt problems, replenishing subterranean ground water and controlling additional weeds. Benefits could include a reduction in pests such as whitefly, nematodes, and weeds that ordinarily require wet conditions such as nut grass. Tile maintenance, ditch repair and lasering could also take place during the program without disrupting farming operations.

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Revenue (2 years)	$1,242.00
Expenses	
Water (2 years)	$ 90.00
Weed Control	$ 115.00
Total Expense	$ 205.00
Total	$1,037.00
50% Share to Landowner	$ 518.50

Effects on Alfalfa

After a 2 year fallow program, the majority of the farmers agree that it would be imperative to pre-irrigate the ground prior to planting alfalfa. This would replenish ground moisture, break down clods, generally improve the seedbed, and also germinate weeds. Some agreed that 2 pre-irrigations might be necessary.

Not all ground would be suitable for alfalfa after the program. Extremely sandy fields as well as hard ground with some salt may need to be preceded with sorghum crops for one year. This would allow the ground to leach the salt down past the root zone and replenish moisture prior to investing in a long-term crop such as alfalfa. In an extreme case, a marginal alfalfa field prior to the program may suffer extensively and require 5-10 years before rotating back to alfalfa. Due to the fact that all the farmers entered their poorest ground in the program, this is a legitimate concern for many. If the ground was on a long-term improvement program, a 2 year land fallowing program may nullify or deteriorate years of reclamation.

Many farmers felt that the improved alfalfa market in 1993 was related to the land fallowing program. Overall alfalfa acreage in Palo Verde was reduced by 12,000-13,000 acres in the land fallowing program. This was a significant amount for Palo Verde but a fraction of the total acres (1 million) in the state. Nevertheless, the psychological impact was present amongst buyers and sellers both. Together with a reduction in acres statewide as well as reduced yields due to the whitefly, the land fallowing compounded the short supply.

Community Impact

Ag related and non-ag related businesses were affected in different ways within the community. Some equipment dealers felt their reduction in sales would be a reflection of the total acres reduced in the Valley (25%).

Chemical applicators reaped the benefits of herbicide use to control weeds. However, according to one applicator the land fallowing provided 2 sprays average per field for weed control as compared with 5 sprays average for a field in production, thus an overall loss was realized. One custom equipment operator was severely impacted by having to reduce his labor

force as well as having expensive equipment standing. During the program a cotton gin also closed which the owner attributes partially to the land fallowing.

Farmers in general felt they used their income to reduced debt and prepare for future expenses. If other funds were available they felt those monies were used at the local level. This would have a positive impact on sales for local vendors but studies before and after would be necessary for actual figures.

Conclusion

Certainly the timing was ideal for the MWD to implement the program due to depressed agricultural markets for the farmer and 7 year drought for the urban user. These facts were a major contribution to the success of the program. Some questions to contemplate are: 1) Is a precedent set for agriculture in that the program indicates that we don't need all the water or all the crops we produce? 2) If this program was spread to other valleys, what would the true impact be to alfalfa and its market? 3) Given good economic conditions would the program so easily materialize?