# LOW DESERT ALFALFA PRODUCTION

By: Leslie L. Ede[1]

Alfalfa production in the Palo Verde Valley generally runs around 30,000 acres or roughly 30-33% of the valley's acreage. This past season saw an increase due to the anticipated California drought conditions and potential hay shortage.

Needless to say, these conditions didn't materialize and the Colorado River irrigated desert valleys were caught with excessive production in a stressed hay market. our advantage of an ample water supply backfired. The following table shows the difference in acreage:

| | ACREAGES | |
|---|---|---|
| VALLEY | 1989 | 1991 |
| Imperial Valley (CA) | 170,339 | 205,467 |
| Parker Valley (AZ) | 41,700 | 47,000 |
| Palo Verde Valley (CA) | 25,835 | 44,202 |
| Yuma Valley (AZ) | 31,100 | 40,000 |
| Coachella Valley (CA) | 3,810 | 1,940 |
| TOTALS | 272,784 | 338,609 |

The most pronounced production change in the last 20 years is probably the move away from bailing wire and improved land leveling or dead level borders, and widening of the border in conjunction with the leveling. Recent moves to beds for better salinity or moisture control is being tried by some growers with mixed results. Six rows may be planted on the top of the beds and one or two rows on the side of the bed. The two middle rows on the top of the 40" bed system usually salt out where salinity is a problem.

Besides the low water cost in the Palo Verde Valley of $31-$41/acre of land, the valley is in balance from a salinity aspect. This is due in part to the well-maintained, open drain system maintained by the Palo Verde Irrigation District. Salt wise, we return approximately the same amount of salts in our drainage waters to the river as we divert onto the land. That doesn't mean all the land in the Palo Verde Valley is salt free, or capable of producing alfalfa. Some of the heavier (Imperial soil series) are either too saline or impermeable to produce or maintain an alfalfa stand when irrigated to meet the needs of lower water holding soils in the same field.

Pests and diseases seem to be attracted to our desert alfalfa. Recent outbreaks of whiteflies (Poinsettia strain of the sweet potato whitefly), leafhoppers, summer black stem and leaf spot, Texas root

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[1] Leslie L. Ede, Farm Advisor, University of California Cooperative Extension, 160 N. Broadway, Blyth Ca 92225.

rot, nematodes, and crown gall are just a few of the production problems we encounter which may not be familiar to growers in central California. Rhyzoctonia and Southern anthracnose are also probably more severe in the desert valleys than central California.

As for alfalfa varieties, the desert valleys are predominantly planted to the non-dormant or very non-dormant varieties. Many different non-dormant commercial lines are used by growers in the Palo Verde Valley; with fall planting around the 1st of October preferred, but December to March plantings still occur. CUF-101 is still the most common public variety planted, with UC-Cibola preferred by some growers with a predominance of light textured soils. We still produce mostly 3-wire (twine) baled alfalfa, where the big bales are commonly seen in the Imperial Valley.