

## Irrigation Termination Effect on Upland Cotton

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Increased water costs and larger infestations of pink bollworms and weevils have raised grower interest in earlier termination. Earlier testing has shown that mid-September or late September irrigation failed to increase yield and often delayed harvest. However some growers are unconvinced or believe that varying seasonal temperatures may justify later irrigation some years. Mid September irrigation at Buckeye, Arizona failed to increase yield for the third consecutive year.

Later irrigation did not affect grades but produced shorter staple length than normal early September irrigation. Later irrigation also produced lower ginning turnout and an average 5.05 Micronaire compared to an average premium Micronaire of 4.85 for earlier termination.

Eleven irrigations and nine insecticide treatments were applied to DP 90 on this Laveen sandy loam indicating the general trend toward higher production costs.

### Hayden Farms Irrigation Termination

| Irrigation Termination | Lbs Seed | Cotton | Turnout | 1st Pick | 2nd Pick | Ground Cotton | Total  |
|------------------------|----------|--------|---------|----------|----------|---------------|--------|
|                        | 1        | 2      | 3       | 4        | %        | Lint/A        | Lint/A |
| Sept 8                 | 1555     | 1570   | 1575    | 1570     | 34.8     | 1520          | 101    |
| Sept 16                | 1515     | 1525   | 1550    | 1555     | 34.3     | 1467          | 89     |
|                        |          |        |         |          |          | 54            | 1675   |
|                        |          |        |         |          |          | 54            | 1610   |

\*Ground cotton yield for the entire field of DP 90 using single pass.

| <u>Quality</u> |                    |               |                     |               |               |  |
|----------------|--------------------|---------------|---------------------|---------------|---------------|--|
| <u>Grade</u>   | <u>September 8</u> |               | <u>September 16</u> |               |               |  |
|                | <u>Staple</u>      | <u>Micron</u> | <u>Grade</u>        | <u>Staple</u> | <u>Micron</u> |  |
| MID            | 1 1/8              | 4.8           | MID                 | 1 1/8         | 5.2           |  |
| MID            | 1 1/8              | 4.8           | MID                 | 1 3/32        | 5.0           |  |
| MID            | 1 1/8              | 4.9           | MID                 | 1 3/32        | 4.9           |  |
| MID            | 1 1/8              | 4.9           | MID                 | 1 3/32        | 5.1           |  |

### Crop History

SOIL - Laveen sandy loam. PREVIOUS Crop - Cotton. HERBICIDE - 1 pt Prowl. PLANTING DATE - April 19. FERTILIZER - 10 ton manure, 30 gal. UN32, 15 gal. UN32. INSECTICIDES - 8 lbs Temik on 6-12. 9 applications. Last date 9/19. IRRIGATION - 11 irrigations. DEFOLIATION - 2 pts. DEF & 1 1/2 pts Accelerate October 29. HARVEST - 1st pick November 15, 2nd pick January 3, Ground January 7.