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# FRUIT AND NUT CROPS RESEARCH IN TEXAS, 1987

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**SUBJECT TOPIC:** Chemical Mowing of Orchard Middles With Roundup, Fusilade and Poast

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**CROP(S):** Pecans

**ABSTRACT:**

Objectives:

1. Compare varying rates of Roundup herbicide and Roundup plus additives to determine optimum effects.

2. Compare chemical mowing effects of Roundup, Fusilade and Poast.

General Approach:

Initial chemical treatments were made on June 6, 1986, one week after mowing the predominantly Coastal bermudagrass orchard floor. Three of the treatments with Roundup were repeated on July 30.

Treatments were applied at 6.4 Km/hr (4 mph), 140 KPa (20 PSI), 84 l of solution per hectare (9 gal/acre) with a tractor-drawn sprayer with 80015 flat fan spray tips. Single plots 30' wide and 150' long were used for each treatment.

Findings:

Roundup at 0.9 l/ha (12 oz/acre) gave very satisfactory suppression of Bermudagrass growth (Table 1). Addition of 1% Uran (32-0-0) improved the suppression by Roundup.

Half rates of both Fusilade and Poast gave very good suppression of Bermudagrass.

Retreatment of the Roundup plots at 0.9 l/ha (12 oz. rates only) on July 30 gave less dramatic suppression, but were adequate to avoid the need for mechanical mowing until harvest.

A cost comparison of mechanical mowing at 2 mowings each of $12.30/ha ($5/acre) with each chemical mowing at $4.92/ha ($2/acre plus cost of chemical) produced the following comparison.

| | |
|---|---|
| Roundup 0.36 l (12 oz) ------ | $ 9.50 |
| Fusilade 4E 0.12 l (4 oz) --- | 9.80 |
| Poast 0.36 l (12 oz) -------- | 11.85 |
| Mechanical Mowing ---------- | 10.00 |

Table 1. Chemical control of bermudagrass using selected herbicides.

| Treatment (6/13/86) | 6/26/86 Vigor (1-10) | 6/26/86 Grass Ht cm | 6/26/86 Grass Ht (inches) | 7/30/86 Vigor (1-10) | 7/30/86 Grass Ht cm | 7/30/86 Grass Ht (inches) |
|---|---|---|---|---|---|---|
| Check | 10 | 25.4 | 10.0 | 5 | 30.5 | 12 |
| Roundup 0.9 l/ha (12 oz/acre) | 4 | 6.4 | 2.5 | 4 | 15.2 | 6 |
| Roundup 0.9 l/ha (12 oz/acre) + Bivert 0.45 l/ha (6 oz/acre) | 4 | 6.4 | 2.5 | 4 | 15.2 | 6 |
| Roundup 0.9 l/ha (12 oz/acre) + Uran (1%) | 3 | 5.1 | 2.0 | 3 | 10.2 | 4 |
| Roundup 0.45 l/ha (6 oz/acre) | 6 | 10.2 | 4.0 | 7 | 30.5 | 12 |
| Roundup 0.45 l/ha (6 oz/acre) + Bivert 0.23 l/ha (3 oz/acre) | 6 | 10.2 | 4.0 | 7 | 30.5 | 12 |
| Roundup 0.45 l/ha (6 oz/acre) + Uran (1%) | 6 | 10.2 | 4.0 | 7 | 30.5 | 12 |
| Fusilade 0.29 l/ha (1/4 pt) + Natural Oil 2.3 l/ha (1 qt/acre) | 2 | 6.4 | 2.5 | 3 | 10.2 | 4 |
| Poast 0.86 l/ha (3/4 pt/ac) + Natural Oil 2.3 l/ha (1 qt/acre) | 2 | 6.4 | 2.5 | 3 | 12.7 | 5 |