

## Herbicide Establishment Systems Maximize Seeding-Year Alfalfa Yield and Quality

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In recent research conducted at Rosemount, MN, and Arlington, WI, greatest seeding-year alfalfa yields and total forage quality were achieved either solo seeding alfalfa with herbicide or using an oat mulch and herbicide. Two experimental Roundup Ready and two conventional alfalfa varieties produced similar seeding-year forage yields and quality within establishment systems.

Establishment systems included solo seeding with herbicide, an oat mulch (companion crop killed when 6 inches), an oat companion crop harvested at boot, and a control (no herbicide or companion crop). Alfalfa varieties included two Roundup Ready experimental varieties (with Roundup applied per label in the solo-seeded and oat mulch treatments), and 54V46 and Rebound 5.0 (with Raptor applied per label in the solo-seeded and oat mulch treatments). Oat boot and control treatments received no herbicides.

Seeding-year average alfalfa yield and total forage quality results are shown in Table 1. Lowest alfalfa yields and total forage quality occurred with the oat boot treatment. Both herbicide systems were effective at controlling grass and broadleaf weeds.

Table 1. Seeding-year alfalfa yields and forage quality at Rosemount, MN.

<b>Establishment system</b>	<b>Alfalfa Yield (Ton/acre)</b>	<b>Total Forage RFQ</b>
Solo-seeded w/ herbicide	3.3	205
Oat mulch companion w/ herbicide	3.0	203
Oat forage (boot) companion	1.7	166
Control (no companion or herbicide)	2.6	195

Data are averaged across Roundup Ready and conventional entries