



Forage Crops Production Technology

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ALFALFA VARIETIES FOR OKLAHOMA, 2007

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The purpose of the Alfalfa Variety Evaluation Program at OSU is to help alfalfa producers decide which varieties to consider and to assist alfalfa seed companies choose which varieties to market in this area. This choice is important to alfalfa producers and must be resolved before establishing new stands. Thousands of varieties have been developed during the last 40 years, and many look pretty good, but only a few are consistently good at several locations and years.

Normally 10 to 15 new alfalfas are submitted annually for testing in Oklahoma. We also include in these tests some varieties that are well tested to give a sound basis of comparison among varieties.

Table 1 summarizes facts about the best varieties in current tests. Readers who want detailed information about alfalfa variety performance should visit <http://alfalfa.okstate.edu/var-test/alf-var.html> on the Internet. Currently, detailed results for the 1999-2006 harvest years in Oklahoma are available and can be printed from that site. If anyone desires older data, email the authors at john.caddel@okstate.edu

Varieties listed in Table 1 are well-tested and have had consistently good yields. That is, they have been in several tests, representing diverse alfalfa production areas in the state.

Test-years is the sum of the number of years a variety has been in tests. In general 10 test-years is a minimum to have confidence of a variety's yield potential. **Relative Yield** is a relative ranking of a variety's yield, compared to others in a test. A **Relative Yield** score of 100% indicates a variety's yield performance is average among those in a test. Table 1 also gives the year a variety was released and who markets the variety in Oklahoma. Some

alfalfa varieties are marketed in Oklahoma that are not submitted for testing. They may be high-yielding or poor, but without testing we do not know.

Summary of Good Varieties

55H05 was developed and has been marketed by Pioneer Hi-Bred International, Inc. since its release in 2002. 55H05 has always been a high yielder in the seven test that it has been in.

Magnum V, released in 1995, has been one of the highest yielding and well-tested varieties for this area. It has consistently produced high yields in diverse locations.

Good As Gold II was released in 1999 as a replacement for Good As Gold. It has performed well in our tests and is distributed by Johnston Seeds.

Garst 6420 was released in 1998, and is distributed in Oklahoma by Garst Seed dealers. It is another in a long line of good varieties marketed by this company.

OK 49 is a relatively old (1990) variety developed by the Oklahoma Ag. Experiment Station for Oklahoma that has maintained its high yield and persistence. It is marketed by Ross Seeds.

Magna 601, released in 1999, is distributed by Dairyland Seeds. It has performed well in all but one test where it was included, and for some unknown reason some other traditionally good varieties performed poorly in the same test.

Table 1. Performance summary of the proven varieties

Entry	Test-Years	Relative Yield*	Released Date	Marketer in Oklahoma
Magnum V	20	104	1997	Dairyland Seed
Good As Gold II	36	103	1999	Johnston Seeds
Magna 601	12	102	1999	Dairyland Seed
Garst 6420	34	102	1999	Garst Seeds
55H05	18	102	2002	Pioneer Hi-Bred Intl.
OK 49	159	101	1990	Ross Seeds

* **Relative Yield** is the relative ranking of a variety's yield, compared to others in a particular test. A **Relative Yield** score of 100% indicates a variety's yield performance is average among those in a test.

Additional Information: Alfalfa forage yield for a particular variety varies from year to year and from one site to another; however, a variety's Relative Yield Scores varies much less. For this reason (and to conserve space), Relative Yield Scores are presented. This is the total yield for a variety in a test divided by the average of all varieties in the test and multiplied by 100. Detailed yield data for each harvest in every trial are on the Internet at <http://alfalfa.okstate.edu/var-test/alf-var.html>.

Roundup Ready® Alfalfa Was Here

During the last several years the subject of the most frequently asked questions has had to do with Roundup Ready® alfalfa. Roundup Ready® alfalfa was deregulated in June 2005 and was the first perennial forage GMO cleared for cultivation. This meant it could be produced without restrictions. We have been working with industry and other Universities to collect as much data as possible about RR alfalfa varieties and their management. FORAGE NEWS, issue #1 in 2007 had a summary of some of our Roundup Ready® grazing alfalfa activities, and issue #3 had a summary of seeding rate studies with Roundup Ready® alfalfa. For links to these articles, see <http://forage.okstate.edu/oklahoma-forage-newsletter.htm>

During spring 2007 a judge ruled that the USDA had not submitted a "complete" environment impact statement regarding RR alfalfa and that no RR alfalfa could be planted after March 30, 2007 until the environment statement is completed, but alfalfa that was planted prior to that date could be used commercially.

Now, there has been an Administrative order issued by the USDA as a result of the Court Injunction on Roundup Ready® alfalfa setting out how RR alfalfa can be used. The ruling can be seen at the following link http://www.aphis.usda.gov/brs/pdf/RRA_A4_final.pdf "2007 Court Ruling On Roundup Ready® Alfalfa". In general, the ruling says that RR alfalfa planted before March 30, 2007 can be used in the production of forage but it must be labeled and maintained separate from non-RR alfalfa when it leaves the farm where it was produced. The ruling also details how harvest equipment must be cleaned when the equipment is moved from a RR alfalfa field to a non-RR alfalfa field. Everyone who bought Roundup Ready® alfalfa seed should receive a notice about the ruling.

Be sure to note that no claim that RR alfalfa has harmed anyone or anything, and no potential danger to anyone or anything has been claimed. APHIS lists 35 counties in Oklahoma where RR alfalfa was planted, indicating a great interest in this new technology. Other information about this ruling and some of the history of the court case can be found on the internet at USDA - A P H I S - B i o t e c h n o l o g y <http://www.aphis.usda.gov/biotechnology/alfalfa.shtml>.

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