

## Alfalfa Variety Testing

E. Charles Brummer, associate professor  
Mark Smith, research associate  
Department of Agronomy

times each in 1999, 2000, and 2001, using a sickle bar harvester. Fertility was maintained according to ISU soil test recommendations. The test was not sprayed for potato leafhoppers.

### Introduction

New varieties of alfalfa are released by commercial breeding companies each year. The Iowa State University forage breeding program, in conjunction with the Iowa Crop Improvement Association, tests commercially available varieties at five locations in Iowa, including at the Western Research Farm. Funding to conduct these tests is provided by entrants who pay a fee to have their varieties included. Our tests provide an unbiased comparison among cultivars deemed adaptable to particular regions of the state by the companies.

### Materials and Methods

A variety trial was planted in April 1998, with a drill at a rate of 18 lb/acre. Each variety was replicated four times in a randomized complete block design. Plot size was 3' x 12'. The test was harvested three times in 1998 and four

### Results and Discussion

Forage yields (in tons of dry matter per acre) were lower in 2001 than in 1999 or 2000 (Table 1). In choice of varieties, several traits are important, including high yield, maintenance of yielding ability through the later years of a trial, and disease resistance. More complete information on the alfalfa variety trials, including seed sources and disease resistance profiles are available in ISU Extension Bulletin AG-84 or online at:

<http://www.public.iastate.edu/~brummer/extension.html>.

### Acknowledgments

We thank Wayne Roush for his assistance and the Iowa Crop Improvement Association for funding.

**Table 1. Alfalfa variety test yields. 1998 Castana test yields (tons/acre).**

<b>Variety</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>Avg<sup>a</sup></b>
DK140	4.52	8.24	5.67	5.52	6.48
DK142	4.25	8.14	5.69	5.48	6.44
5454	4.09	8.07	5.53	5.43	6.34
Feast+EV	4.40	8.29	5.54	4.97	6.27
Depend+EV	4.42	8.08	5.27	5.41	6.25
Amerigraze 401+Z	4.34	7.46	5.66	5.49	6.20
53Q60	4.21	7.97	5.46	5.09	6.17
DK141	4.54	8.10	5.52	4.62	6.08
Baralfa 54	4.30	8.63	4.85	4.56	6.01
Innovator +Z	4.43	7.32	5.58	5.12	6.01
Vernal	4.41	7.61	5.45	4.96	6.01
GoldPlus	4.09	6.80	4.90	4.66	5.46
Mean	4.37	7.88	5.42	5.13	6.14
LSD(5%)	0.29	0.83	0.45	0.51	0.52

<sup>a</sup>Average of 1999, 2000, and 2001.