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Forage From Small Grain Crops

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In our annual evaluation of current varieties of winter cereals for forage last year, we tested nine varieties of wheat, four of barley, six of rye, three of triticale, three of oats, two wheat x wheat-grass crosses, two annual ryegrasses and one perennial ryegrass. The ryegrasses were included because many farmers are starting to use them in lieu of some of the small grains.

The test was planted September 13, 1972. A broadcast application of 50 pounds of N, 100 pounds of P_2O_5 , and 50 pounds of K_2O (50-100-50) was disced in prior to planting and 50 pounds of N was applied April 6. All plots were harvested when they were tall enough to be cut with a sickle mower.

AGRICULTURAL EXPERIMENT STATION
Kansas State University, Manhattan
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1973 small grains forage yields, tons per acre.

Variety ¹	Yields and ranks on clipping dates ²								1973 Total ³	Avg. yields ⁴
	2-8	Rank	4-5	Rank	5-3	Rank	6-11	Rank		
Linn per. ryegrass	----	29	1.73	12	3.38	1	2.07	3	7.18	----
Tetraploid ann. ryegrass	0.09	27	0.57	27	1.91	2	2.87	1	5.44	----
Wintergraze 9090 (w x wg)	0.30	19	1.25	20	1.66	5	1.75	4	4.96	----
Parker wheat	0.76	7	2.42	4	0.72	18	1.02	6	4.92	3.67 (5)
Wintergreen ann. ryegrass	0.19	22	0.61	25	1.70	3	2.09	2	4.60	----
Scout wheat	0.82	6	1.79	11	0.84	15	1.01	7	4.45	3.15 (5)
Chanute wheat	0.33	18	2.22	5	0.91	13	0.90	10	4.36	5.02 (2)
Balbo rye	0.70	8	3.20	1	0.46	28	----	18	4.35	3.55 (6)
Centurk wheat	0.69	9	1.84	10	0.63	22	1.07	5	4.23	2.89 (2)
Koolgrazer rye ⁵	0.07	28	3.16	2	0.78	17	----	18	4.01	3.71 (3)
Wintergraze 9290 (w x wg)	0.47	16	1.55	13	0.97	11	1.00	9	3.98	----
Kerr barley	0.85	4	1.29	17	1.25	6	0.22	17	3.62	----
FasGro (t)	----	29	2.57	3	1.04	9	----	18	3.61	3.00 (2)
Wintergrazer 70 rye	1.00	2	1.87	9	0.62	23	----	18	3.49	3.37 (4)
Triumph 64 wheat	0.56	15	2.18	6	0.67	21	----	18	3.41	2.83 (6)
Sturdy wheat	0.82	5	1.29	18	0.52	26	0.73	12	3.36	3.39 (3)
Kaw 61 wheat	0.63	12	1.19	21	0.68	20	0.82	11	3.33	----
Paoli barley	0.58	14	1.08	22	1.66	4	----	18	3.32	2.64 (2)
FasGro 385 (t)	0.13	26	1.95	7	1.16	7	----	18	3.25	2.94 (2)
Danne wheat	0.34	17	1.88	8	0.70	19	0.31	16	3.23	2.41 (2)
Cimarron oats	0.59	13	0.60	26	0.90	14	1.00	8	3.10	----
Eagle wheat	0.18	23	1.27	19	0.94	12	0.58	14	2.96	----
Bonel rye	0.94	3	1.43	16	0.53	25	----	18	2.90	----
FasGro Grazer N Blend (t)	0.16	24	1.49	15	1.14	8	----	18	2.79	----
Elbon rye	0.65	10	1.52	14	0.42	29	----	18	2.60	2.86 (5)
Penngraze W rye	1.16	1	0.84	23	0.46	27	----	18	2.45	2.53 (2)
Will barley	0.26	20	0.84	24	0.99	10	----	18	2.10	2.43 (5)
Nora oats	0.64	11	0.15	29	0.59	24	0.72	13	2.09	----
Arkwin oats	0.24	21	0.23	28	0.83	16	0.47	15	1.76	1.24 (2)
Johnson barley	0.15	25	0.06	30	0.31	30	----	18	0.53	----
LSD .05	0.25	--	0.64	--	0.39	--	0.33	--	1.00	----

1. t = triticale; w x wg = wheat x wheatgrass cross.

2. Yields are given in oven dry weight.

3. Nonsignificant groupings are connected by the same line.

4. Numbers in parenthesis are the number of years included in the average.

5. Late entry.

Summary

Yields did not follow the usual pattern -- perhaps because winter and spring (1972-73) were unusually wet. Top yielders were three ryegrasses; Linn, the perennial; Tetraploid, and Wintergreen; two wheats, Parker and Scout; and Wintergraze 9090, a wheat x wheatgrass hybrid. Normally the ryes are the high yielders, with some wheats about equal. Next come the remaining wheat, the barleys, oats and the triticales.

Although Johnson barley was the low yielding entry in the test, its data do not reflect its potential. It produced a large amount of forage in the fall which was not harvested because the plots were too muddy to cut. By spring, 12-14 inches of top growth had frozen back to the crowns, lodged, and partially decomposed.

Johnson barley made considerably more fall growth than any other entry. It also winterkilled rather heavily, so it might be best used farther south, or in small grain mixtures to increase fall production.

The time the forage is produced is often more important to a farmer than total production. Consequently, the varieties have been ranked in the table for each cutting date so this factor can be easily determined.

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