

WHEAT FOR STRAW

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INTRODUCTION:

Producers near urban areas have a viable market for small grain straw sales. Current recommendations for straw production include selecting a high-yielding grain variety to also produce straw. Small grains varieties were selected to test whether high grain yields will result in high straw yields.

MATERIALS AND METHODS:

Six small grain varieties were planted near Lexington, Kentucky on October 13, October 31, and November 26, 2003. Five of the varieties were soft red winter wheat and one was triticale (Table 1). All varieties were no-till seeded at 40 plants ft² into corn stubble.

Brand and Variety	Type	Head Type
Exsegen Sarah	Soft Red Winter Wheat	Awnless
KAS Allegiance	Soft Red Winter Wheat	Awned
NK Coker 9663	Soft Red Winter Wheat	Awnless
Pioneer 25R23	Soft Red Winter Wheat	Awned
Pioneer 25R49	Soft Red Winter Wheat	Awnless

RESULTS:

Both October planting dates resulted in similar head numbers per square foot (Table 2). The latest planting date reduced number of small grains heads per square foot by 21% compared with the earliest planting date. Trical 336 was the tallest small grain variety at all three planting dates. Exegen Sarah was second in height at the two October planting dates but dropped to fourth in height for the latest planting date.

All winter wheat varieties yielded more grain than Trical 336 at the October 13 planting date (Table 4). There were no differences in yield at the October 31 planting date and Trical 336 yielded more than all the winter wheat varieties at the November 26 planting date.

Trical 336 yielded more straw than any winter wheat variety at all three planting dates (Table 5). The winter wheat varieties all had similar straw yields to each other at all three planting dates. The October 31 planting date resulted in the highest straw yields when straw yields were averaged across all varieties. The November 26 planting date resulted in about 36% less straw than the October 31 planting date.

CONCLUSIONS:

The data presented here is from one location and one year, so interpretation of the data should proceed with caution.

The one year, one location data indicated that winter wheat grain yield differed among winter wheat varieties. However, straw yields were similar across all winter wheat varieties. Higher winter wheat grain yields did not correspond to higher straw yields.

Farmers interesting in growing a small grain strictly for straw production should consider triticale as an option, since it yielded more straw than any of the winter wheat varieties.

Planting Date	Head No. per ft²
13-Oct	70.3
31-Oct	71.5
26-Nov	55.5
LSD (0.05)	5.8

TABLE 3. VARIETY AND PLANTING DATE EFFECT ON PLANT HEIGHT

Varieties	Planting Date		
	13-Oct	31-Oct	26-Nov
	Height (inches)		
Exsegen Sarah	72.3	72.3	65.8
KAS Allegiance	68.0	67.8	66.8
NK Coker 9663	67.3	69.8	70.8
Pioneer 25R23	66.3	65.8	61.0
Pioneer 25R49	61.8	60.5	57.8
Trical 336	81.8	81.8	78.0
LSD (0.05)	3.0	2.8	4.4

TABLE 4. VARIETY AND PLANTING DATE EFFECT ON GRAIN YIELD

Varieties	Planting Date		
	13-Oct	31-Oct	26-Nov
	Grain Yield (bushels/acre)		
Exsegen Sarah	68	72	42
KAS Allegiance	70	73	41
NK Coker 9663	71	64	40
Pioneer 25R23	73	72	38
Pioneer 25R49	73	75	32
Trical 336	59	62	50
LSD (0.05)	8	17(ns)	7

TABLE 5. VARIETY AND PLANTING DATE EFFECT ON STRAW YIELD

Varieties	Planting Date			
	13-Oct	31-Oct	26-Nov	Average
	Straw Yield (tons/acre)			
Exsegen Sarah	1.35	1.59	0.89	1.28
KAS Allegiance	1.22	1.32	0.93	1.16
NK Coker 9663	1.40	1.44	0.84	1.29
Pioneer 25R23	1.42	1.52	0.77	1.24
Pioneer 25R49	1.36	1.35	0.74	1.13
Trical 336	1.93	2.16	1.77	1.95
LSD (0.05)	0.34	0.29	0.30	0.17
				LSD(0.05)
Average	1.44	1.56	0.99	0.12

