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Panhandle Ag Extra

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2001 Wheat Crop

The 2000 - 2001 wheat crop was disappointing to some farmers while being an excellent year for others. The crop got off to a rocky start due to our exceptionally dry fall. In many cases a wheat stand was not established as a result of the dry fall weather. However, once winter snows arrived we had almost ideal weather for growing wheat through harvest. Those farmers who were able to get their wheat established ended up with a good to excellent crop. Cool weather coupled with timely spring rains caused an increase in late tiller production as well as more grain being produced per wheat head. Insect and disease infestation were minimal throughout the spring.

Wheat Variety Trial Results

Wheat variety trials were harvested from seven locations across the Panhandle. Each trial consisted of 30 wheat varieties (See accompanying tables). The dryland trials were established near Silverton, Sunray, Perryton, and Canadian. Limited irrigated trials were located near Wellington and Wilderado, and a site near Dimmitt was fully irrigated.

In the dryland trials the varieties that yielded in the top 20% were very consistent between locations. Top varieties were Jagger, TAM 105, Thunderbolt, 2174, Tonkawa, Cutter and Dumas. Jagger is an early maturing Kansas wheat that has yielded particularly well the last couple of years. It is considered a good grazing wheat that can be planted deep and has good resistance to most diseases. TAM 105 has been around since the mid 70s but continues to perform well year in year out, despite the fact that it is susceptible to most diseases. Thunderbolt has been impressive since its release by AgriPro in 1998. Tonkawa is an Oklahoma wheat with a TAM 105 background that also has been a very consistent performer. Two new varieties in this year's trials are Cutter and Dumas. These are AgriPro varieties that will not be available until 2002. Cutter looked particularly good in dryland tests yielding 75 bu/Acre in the Canadian trial this year.

In the fully irrigated trial near Dimmitt, several varieties yielded more than 100 bu/Acre. Varieties yielding over 115 bu/Acre were Dumas, Jagger, Prairie Red, Thunderbolt, TAM 201, and TAM 400. Prairie Red is essentially TAM 107 with Russian wheat aphid tolerance. TAM 201 has been tested for several years and generally performs best in the Rolling Plains area of Texas. TAM 400 was developed as a south Texas wheat but has performed very well in irrigated trials in the Panhandle the last two years. This is a variety that if it continues to perform well should be considered in the future.

Variety Recommendations

Each year is different. For this reason, always look at yield data from at least three consecutive years before selecting a variety for planting. It is also a good idea to plant more than one variety since varieties perform differently under various environmental conditions. Some varieties also tend to perform better in different parts of the Panhandle. Past results form variety trials performed around the Panhandle can be viewed at the following web sites:

97-98 Results: http://soil-testing.tamu.edu/publications/832728-scs-98-25.PDF
98-99 Results: http://soil-testing.tamu.edu/publications/833080-2000-13PDF.PDF
99-00 Results: http://amarillo.tamu.edu/amaweb/Programs/Agronomy/pageone/p10701.pdf

When considering a variety, characteristics such as plant height, disease and insect tolerance, coleoptile length (determines how deep the variety can be planted), and fall grazing potential should be considered along with yield data. Under dryland conditions it is hard to go wrong with Custer, Jagger, TAM 105, TAM 110 or Thunderbolt. All five varieties have good yield histories. Custer and Jagger are considered good grazing wheats, and TAM 110 has greenbug tolerance. Thunderbolt has good straw strength along with good tolerance to wheat streak mosaic and leaf rust. Under full irrigation Hickok has been a consistent performer. Jagger, Ogallala, TAM 200, and TAM 110 should perform well under a wide range of conditions. Other irrigated varieties to consider are TAM 302 and 2137. Varieties to watch are Dumas and TAM 400.

Variety Recommendation

Irrigated	**Dryland**
Hickok	Custer
Jagger	Jagger
Ogallala	TAM 105
TAM 200	TAM 110
TAM 110	Thunderbolt

Common Questions Concerning Karnal Bunt

What is Karnal Bunt?

Karnal bunt is a fungal disease of wheat and triticale. Typically, only a portion of the wheat kernel is affected; this is why the disease is sometimes called partial bunt. This disease is influenced by weather and climatic conditions - the most severe infections occur when there is cool and wet weather at the time the wheat is heading out. Infected portions of the kernels will have a black powdery spore mass at one end, which will extend along the crease. The infected kernels will have a fishy odor similar to that of common bunt. While karnal bunt can affect the color, odor, and palatability of flour and other foodstuffs, it does not present a risk to human or animal health. It generally will have minimal impacts on grain yield.

Do we have Karnal Bunt in the Panhandle?

Although we do occasionally have wheat that is infected with various kinds of smut diseases, there have been no confirmed cases of karnal bunt in the Texas Panhandle or South Plains. This year karnal bunt was discovered in four counties of the Rolling Plains.

What happens if your wheat field becomes infected with Karnal Bunt?

These are the current guidelines being imposed in the Rolling Plains: Counties where the grain and fields are located are quarantined by the USDA-APHIS. All harvested grain must be sampled, tested, and approved before moving through the normal marketing channels. All hay must be inspected and cleared before leaving the quarantined area. Hay which was swathed and baled before kernel formation should be okay, but must still be inspected and cleared before moving out of the quarantined area. If kernel formation had started before the hay was swathed and baled then a 4-pound

Dryland Wheat Variety Trials 2000 - 2001

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Variety [1)]	Silverton			Canadian			Sunray			Perryton
	Plant Ht. In.	Test Wt. lb/Bu	bu/Acre	Plant Ht. In.	Test Wt. lb/Bu	bu/Acre	Plant Ht. In.	Test Wt. lb/Bu	bu/Acre	bu/Acre
2137	23.0	60.2	28.3	26	56.0	37.1	24	60.6	45.3	28.7
2174	23.0	63.6	34.7	25	58.7	47.0	27	61.3	51.0	37.4
Akron	26.0	59.5	36.2	26.5	55.4	44.3	24	58.6	41.4	30.2
Custer	21.0	58.7	31.0	27	53.7	38.7	22	59.6	41.6	29.1
Cutter	24.0	59.8	44.5	29.5	61.5	82.2	30	61.3	55.7	36.1
Dumas	20.0	60.0	32.5	27	56.8	41.6	27	61.6	59.6	41.7
Hickok	18.0	58.6	29.9	24	54.7	29.7	27	62.4	55.0	27.8
Jagger	24.0	60.1	43.1	27	59.7	75.5	25	60.5	44.7	38.5
Lockett	23.0	56.3	27.6	30	56.3	37.3	23	56.7	39.4	23.4
Longhorn	29.0	55.8	30.7	30	57.0	39.1	21	58.9	XXXX	32.1
Ogallala	21.0	60.2	36.1	26	59.0	46.9	25	60.7	46.6	33.7
Prairie Red	20.0	56.6	31.1	26.5	53.0	35.7	25	59.3	46.9	38.2
Rowdy	19.0	55.2	25.2	25	52.2	30.1	26	58.7	47.6	25.8
Scout 66	37.0	58.2	46.1	39	59.7	58.0	32	58.1	35.8	XXXX
TAM 105	26.0	58.2	39.9	30	57.3	60.8	24	59.7	45.4	39.5
TAM 107	24.0	55.8	26.9	25	54.2	32.5	22	56.8	38.2	25.9
TAM 109	25.0	58.7	36.3	26	53.9	40.2	26	58.1	XXXX	31.3
TAM 110	22.5	57.6	31.0	28	53.2	39.1	27	57.9	40.1	33.6
TAM 200	20.0	58.7	28.1	29	57.2	31.0	23	59.9	38.9	28.7
TAM 201	17.0	53.5	27.6	29	57.2	46.4	22	59.3	38.7	26.0
TAM 202	19.0	58.4	34.5	28	53.8	31.9	21	58.6	45.2	34.3
TAM 302	23.0	54.9	28.7	26.5	54.7	36.3	23	56.6	49.6	28.8
TAM 400	18.0	60.3	31.1	26	53.6	29.9	19	61.2	41.8	27.9
Thunderbolt	22.0	59.7	38.9	36	59.4	52.8	23	59.1	40.9	38.8
Tomahawk	21.0	55.2	32.9	30	50.3	26.2	26	58.7	47.9	31.4
Tonkawa	22.0	61.9	37.1	28	60.2	50.9	25	64.6	56.6	32.9
Trego	26.0	59.6	38.8	28	57.2	47.0	22	62.9	58.4	33.3
Triumph 64	29.0	63.7	33.8	33	59.3	46.3	28	59.5	40.4	31.2

[1)] Seeding rate was 45 lb/Ac at Silverton, and Canadian, 90 lb/Ac at Sunray, and 60 lb/Ac at Perryton.
Trego is a hard white winter wheat variety from Kansas.
Cutter and Dumas are AgriPro varieties that will not be available until 2002.