



Texas Agricultural Extension Service
THE TEXAS A&M UNIVERSITY SYSTEM

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Panhandle Ag Extra

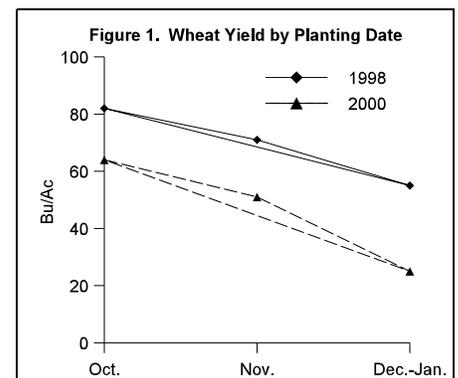
February 2001 Volume 3, Issue 1

2001 Wheat Crop

The 2001 wheat crop got off to a rocky start due to our exceptionally dry fall. In many cases wheat was very late being planted and in some fields has just emerged. So what is the yield potential of the late wheat? Regardless of when the wheat is planted, the key is when did it emerge? We had some wheat planted this year in the middle of November that did not fully emerge until mid-January. Both dryland and irrigated wheat yield potential will generally decrease in the Texas Panhandle when planted after the middle of October. A two-year dryland study conducted by Dr. Steve Winter at Bushland, TX, showed wheat planted the first week of October yielded an average of 39 bu/ac compared to a planting date of around November 8, which yielded 26 bu/a c, or 33% less. A seven-year dryland planting date study in Kansas, conducted by Dr. Merle Witt at Garden City, showed relative grain yield declined with progressive planting dates as follows: October 1 = 100%, November 1 = 77%, December 1 = 59%, January 1 = 57%, February 1 = 41%, March 1 = 16%, and April 1 = 0%. Declining yield with later planting dates is highly correlated to fewer wheat heads and delayed heading date. Wheat planted late does not have the benefit of producing tillers in the fall. These tillers are generally very productive. Some tillering can and does occur in the spring, but how much, and how productive these spring tillers are is very weather dependent. When heading is delayed, temperatures are usually hotter during grain fill resulting in fewer kernels per head and lower test weight. Another factor affecting late planted wheat under dryland conditions is that even if deep soil moisture is good the late planted wheat will not set roots deeply enough to utilize much of the deep soil moisture.

Under irrigated conditions conventional wisdom states that fewer fall tillers can be compensated for by increasing seeding rate. However, a surprising result of a three year study at Bushland showed little advantage in increasing seeding rate over 60 lb/ac, even when planting was delayed until January. In this study, yield decline from the optimum October planting date was dependent on the year ranging from a yield decline of 13 to 20% for a November planting date to a 33 to 61% decline in yield for a December or January planting date (Figure 1).

So – what does this mean about the wheat crop that emerged in late January? Expect a yield decline of 30 to 60 % compared to an October planting date. Can yields turn out better than this? Certainly, but we are going to need some help from mother nature. Potential number of spikelets per head is determined during the period of time when wheat breaks dormancy and stem elongation. This usually occurs from about mid-February to mid-March. No stress on the wheat during this period will promote more spikelets per head. Spring tillering will also increase under favorable



conditions. Right now we generally have good moisture conditions and insects and disease pressure have been light. If we can avoid wide swings in temperature, the wheat should get off to a good start this spring. If late spring weather remains cool along with adequate moisture more kernels will be set per spikelet, test weight will be good, and more late tillers will produce grain.

Oats

With cattle prices up and wheat pasture in short supply, some producers are considering planting oats for grazing or hay. Oats should be planted by March 15 with the optimum planting being the last two weeks of February. Seeding rates under irrigation should be between 100 and 120 lb/ac. Dryland seeding rate is 50 to 60 lb/ac. Several varieties are available, however, we have very little data on some of those being sold. Price will be around \$9 to \$10 for 50 pounds of seed. Walken is a proven forage oat that is later in maturing than many of the others and should provide good grazing. It does not get very tall so it might not be a good choice for hay. Troy and Chilocco are dual purpose wheats that mature earlier than Walken but are taller. Spring planted oats are typically shorter and have a less extensive root system than do winter oats, and as a consequence may run into moisture stress quicker. Oats will germinate in soil temperatures as low as 40° F but will be slow in emerging. Once emerged, oats will likely require 30 days to achieve adequate growth for grazing. Late maturing oat varieties such as Walken will probably provide a week to 10 days more grazing than comparable wheat varieties. Hay yields can be variable, but my best guess is that irrigated oats harvested in the boot stage will likely yield between 3000 and 4500 lb/ac of hay. Quality should be best at this stage. Maximum forage yield and pounds digestible dry matter per acre will be the highest when grain is in the early soft dough stage. Dry matter yield will be around 20% higher when harvested in the soft dough stage compared to harvesting at boot, but protein content will be proportionally lower.

Forage Sorghum

The increase in gas prices has forced many producers to look at alternatives to corn in 2001. One option being considered is producing forage sorghum for grazing, haying, or silage. In 1999 and 2000 over 50 varieties of forage sorghum were compared at the Texas Agricultural Experiment Station at Bushland, TX. Included in these trials were dual-purpose sorghums, photoperiod sensitive varieties, and brown mid-rib varieties. Hay yields were collected in 1999 and silage yields in 2000. Also in 2000 a complete nutrient analysis of all of the entries was completed. To receive a summary of these trials contact your county extension agent or see the web sites listed below.

Sources for forage sorghum information

1999 Forage Sorghum Trial: <http://soil-testing.tamu.edu/publications/833016-831192-99.PDF>

2000 Forage Sorghum Trial: <http://soilcrop.tamu.edu/research/crops/corn-sorghum/croptesting/2000forage.html>

Forage Sorghum Seeding Rates: <http://soil-testing.tamu.edu/publications/844792-rates.PDF>

Forage Sorghum Types: <http://soil-testing.tamu.edu/publications/844504-Types.PDF>