Texas Cooperative EXTENSION
The Texas A&M University System

June 20, 2003

Thoughts on Late Planted Grain Sorghum

Brent Bean, Extension Agronomist

Many producers around the area have lost cotton or corn crops the last couple of weeks due to adverse weather and are considering planting grain sorghum. One of the questions being asked is what maturity of grain sorghum should I plant? Each company classifies their varieties a little differently. The table below gives some general guidelines. The important thing to consider is how many days does it take a variety to reach ½ bloom. Most varieties will reach maturity between 30 and 35 days after ½ bloom has been reached. Obviously, this will depend on weather conditions. If sorghum can be planted next week (June 23 - 27) I would consider those varieties that reach ½ bloom in 60 to 65 days. Many of these hybrids have excellent yield potential. If conditions do not allow planting until the first of July then choose a hybrid that reaches ½ bloom in 56-60 days. Those of you in Hartley and Dallam counties probably have a 3 to 5 day shorter growing season and should take this into account when choosing a hybrid.

Grain Corn Maturity	Days to ½ Bloom	Approx. Days to Maturity*
Early	50-55	85-89
Medium-early	56-60	90-94
Medium	61-65	95-99
Medium-late	66-70	100-105
Late	71-75	105-110

*Uses ~32 days for grain fill and maturity for all hybrids.

Another option for sorghum planted the first week of July is to plant a very short maturing hybrid, but double the seeding rate. Short maturing hybrids generally do not have the yield potential on a per plant basis as the longer maturing hybrids. Research conducted by Reggie Jones in the early 90s showed increased yield three out of five years for a July planting at Bushland when seeding rate was increased from 32,000 to 64,000 seed/acre on 15 inch rows. In the two years that yield was not increased with the higher seeding rate it was equal to the lower seeding rate yield. This research was done under dryland conditions but with a full soil profile of water at planting. DO NOT USE THIS SYSTEM IF YOU DO NOT HAVE A FULL SOIL PROFILE OF WATER (4-5 FT).

Another option is to forego a grain crop this year and plant a hay crop instead. Last year a hay trial was conducted at Bushland comparing four hybrids and three planting dates (see table). The trial was planted dryland on a fallow field. As you may recall we had excellent moisture in August and September of last year that certainly favored this trial. Notice the excellent yield (14,253 lb dry hay) of the photoperiod sensitive hybrid (PS). Hay quality would be expected to be higher with the other three hybrids, but if

tonnage is what the grower wants the photoperiod sensitive hybrids may be a good choice. These hybrids also tend to be drought tolerant. For more information on this trial see the attached paper.

Summary of the effect of planting date on forage yield.

Planting Date	Sorghum/ Sudan	Millet	Forage Sorghum	PS Sorghum/ Sudan	
	BMR 200	Graze King	Millennium BMR	Pacesetter	
	---------- pounds/acre dry matter ----------				LSD (P = 0.05)
July 11	7,246	10,815	9,971	14,253	4,145
July 25	7,930	5,827	8,414	8,619	828
August 15	6,878	6,091	8,272	9,493	ns
LSD (P = 0.05)	ns	1,615	ns	2,887	