Texas Agricultural Extension Service
The Texas A&M University System

Cotton Variety Considerations Under Replant Conditions

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Recent storms across the High Plains have resulted in stand losses and other problems with our cotton crop. In some areas seedling stands were completely wiped out, and questions have arisen concerning the best varietal options for replanting. In areas facing replant situations or final planting deadlines, variety selection becomes critical. In areas north of Lubbock, season rapidly becomes limiting in terms of final lint yield and micronaire for planting dates after June 1.

Dr. John Gannaway has evaluated conventional variety performance under late-planted conditions at the Texas Agricultural Experiment Station at Halfway (Table 1). The multi-year summary indicates that All-Tex Quickie and Paymaster 183 perform better in short-season environments than some other varieties (average). It is my understanding that Stoneville (Holland) 1919 is no longer sold by the company. Another variety that has not had multi-year testing, but should be considered for late planting is AFD Rocket. Seed availability of various varieties may be an issue, so growers should contact seed companies to determine other potential options. Short-season varieties generally have lower fiber quality (shorter, weaker), but produce higher lint yields than longer season types produced under short-season conditions.

Table 1. Yield summary of the irrigated late planted variety test at Halfway, Texas, 1998.

	Yield						
Designation	1993	1994	1996	1997	1998	Average	Comp. Average*
	Five Year Average						
Paymaster HS 26	453	484	486	300	627	470	
	Four Year Average						
All-Tex Quickie	619	654	582		685	635	571
Paymaster 183		883	797	337	703	680	679
	Three Year Average						
Paymaster Tejas			759	307	717	594	627
Paymaster Ute			677	391	569	546	578
Stoneville H1919	549		685		690	641	590

*Patterson, R.E. 1950. A method of adjustment for calculating comparable yields in variety tests. Agron. J. 42:509-511.

Variety selection becomes more limited when comparing only Roundup tolerant types. Growers who planted Roundup Ready varieties (2145RR, 2200RR, 2326RR and seed production acres of additional new varieties) will be provided replant seed by Paymaster due to the 1999 Replant Program. It is my understanding that growers will have the option to replant other varieties than the ones they originally planted. In areas facing planting deadlines, producers who originally planted a longer season Roundup Ready variety (e.g. 2326RR) may opt to replant an earlier type (e.g. 2145RR or 2200RR).

Two publications dealing with replant, stand loss, and skip decisions are available at the Extension Soil and Crop Sciences Departmental website at College Station:

Making Replant Decisions
http://soil-testing.tamu.edu/publications/800824-replant_.pdf

Effects of Stand Loss and Skips on Cotton Yields
http://soil-testing.tamu.edu/publications/800792-skips_ne.pdf

Seedling disease will probably become an issue, especially in water-soaked fields. Dr. Harold Kaufman, Extension Plant Pathologist, reports the following concerning the effects of frequent showers on cotton seedling diseases: Recent frequent showers have set up the South Plains cotton for severe seedling disease potential. Soil temperatures from Lubbock south are holding in the mid to low seventies, but additional rains could lower them further. Temperatures in the mid to low sixties at Halfway, Hereford, and Muleshoe will probably cause even greater loss due to seedling disease. The wet, cool soil conditions are very favorable to *Pythium*. A recent survey of soil from 100 fields across the 20 South Plains counties showed Pythium at high levels in most fields. *Rhizoctonia* and *Thielaviopsis* (the black root rot fungus), will also be very active. Fields with an Apron seed treatment for Pythium and 0.5 fl. oz./CWT of Baytan or 1.75 fl. oz./CWT of Nu-Flow M for *Rhizoctonia* and *Thielaviopsis* should have protection if the rains stop this weekend and the soils warm up. Keep in mind that most seed treatment fungicides only last four weeks after planting. Fields that were planted around May 1 are now at the end of their protection period. If the saturated soils continue another week into June, bacteria will start degrading the roots of cotton plants also. The worst thing is that nothing can be done other than opening up the soil as soon as we can get in the field to encourage a quick warmup.

Final Cotton Planting Date For Insurance Purposes

High Plains and Surrounding Region

May 31
Armstrong
Bailey
Briscoe
Castro
Deaf Smith
Hartley
Lamb
Parmer
Randall
Swisher

June 5
Cochran
Crosby
Dickens
Floyd
Gaines
Hale
Hockley
Lubbock
Terry
Yoakum

June 10
Andrews
Borden
Collingsworth
Dawson
Donley
Garza
Glasscock
Gray
Howard
Lynn
Martin
Midland
Wheeler

June 20
Mitchell
Motley
Scurry