

**PAYMASTER STRIPPER COTTON VARIETIES
PM 2280 BG/RR AND PM 2326 BG/RR
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Abstract

Delta & Pine Land announces the release of two new Bollgard and Roundup Ready cotton varieties for the stripper cotton production areas of the Southwest. Paymaster PM 2280 BG/RR is an early maturing, high fiber quality variety recommended for the Northern High Plains under normal planting conditions and as a variety for replanting after spring weather losses for the Southern High Plains.

Paymaster PM 2326 BG/RR, also carrying the Bollgard and Roundup Ready traits is a medium maturity stripper variety adapted to all stripper cotton production areas of Texas, Oklahoma and New Mexico.

Delta & Pine Land Company is pleased to announce the addition of two new transgenic cotton varieties, PM 2280 BG/RR and PM 2326 BG/RR to the already well known line-up of products for the stripper cotton variety market.

Paymaster PM 2280 BG/ RR

PM 2280 BG/RR is an early season stripper variety derived by a backcrossing program involving a Coker 312 Bollgard and Roundup tolerant strain carrying BG construct 531 and the RR construct 1445 as the donor parent. The recurrent parent was Paymaster HS 200. In the BC3F3 generation, pure breeding lines were identified and an increase program involving a substantial winter increase in South Africa was initiated in the 1997-1998 winter season.

During 1998 and 1999 we conducted multiple location testing within the Research Department. Our Technical Services Department also conducted a series of multiple location, on-farm strip tests during the same period. These tests were conducted primarily with the objective of establishing a comparison for performance and quality of the stacked transgenic strain with respect to the recurrent parent Paymaster HS 200.

PM 2280 BG/RR is recommended for normal planting dates in the Northern High Plains and in the Coastal Regions of Texas. In the Southern High Plains it is recommended primarily for late plantings or for replantings due to weather losses. In the Rolling Plains regions of Texas and

Oklahoma, PM 2280 BG/RR is recommended for irrigated conditions.

The two year (1998 and 1999) multiple location data summary of agronomic traits (Table 1) shows that PM 2280 BG/RR was not significantly different than its recurrent parent PM HS200 for Lint yield, Stormproofness and Plant Height. PM 2280 BG/RR, however, did show a significant increase in lint turnout and in earliness.

Fiber properties (Table 2) for PM 2280 BG/RR are very similar to those of Paymaster HS 200 with no significant differences having been measured for fiber Length, Strength, Micronaire or Elongation.

Paymaster PM 2326 BG/ RR

Paymaster PM 2326 BG/RR is a medium maturity stripper variety developed by a very similar backcrossing and testing procedure as that outlined earlier for PM 2280 BG/RR. In this case, however, the recurrent parent was Paymaster HS 26. PM 2326 BG/RR is recommended, as is Paymaster HS 26, for all the stripper cotton production areas of Texas (High Plains, Rolling Plains, Blacklands and Coastal Bend), Oklahoma and New Mexico.

The two year (1998-1999) multiple location averages for agronomic traits (Table 3), show that PM 2326 BG/RR, yielded on the average, 49 Lbs. of lint per acre above its recurrent parent Paymaster HS 26. This represents roughly a 5 % increase. PM 2326 BG/ RR also showed significant increases in lint turnout and in earliness.

Fiber quality properties for PM 2326 BG/RR (Table 4) are similar to those of its parent variety Paymaster HS 26 with the exception of fiber Length, which tends to be somewhat shorter, and fiber Strength which is slightly lower.

Table 1. PM 2280 BG/RR Agronomic Performance in Paymaster Research trials during the 2 year period 1998-1999.

Cultivar	Yield [Lbs/Ac]	Lint %	Storm-Proof	Pl.Ht. [Inches]	Earliness
PM 2280 BG/RR	946	32.0	2.9	26.9	30.7
PM HS 200	934	31.0	3.0	27.5	26.5
Difference	12	1.0**	-0.1	-0.6	4.2**
L.S.D.(.01)	40	0.4	0.15	0.86	2.7
Tests in Mean	21	21	24	21	16

Stormproofness: Scale 0-5; 5 most stormproof
Earliness: Scale 0-99; 99 earliest

Table 2. PM 2280 BG/ RR fiber properties in Paymaster Research trials during the 2 year period 1998-1999.

Cultivar	Len. [In.]	Str. [g/tex]	Mic	Elong.
PM 2280 BG/ RR	1.080	29.78	4.04	6.7
PM HS 200	1.090	30.09	4.12	6.6
Difference	-0.010	-0.31	- 0.08	0.10
L.S.D.(.01)	0.015	0.92	0.20	0.25
Tests in Mean	25	25	25	25

Table 3. PM 2326 BG/RR Agronomic Performance in Paymaster Research trials during the 2 year period 1998-1999.

Cultivar	Yield [Lbs/Ac]	Lint %	Storm-Proof	Pl.Ht. [Inches]	Earliness
PM 2326BG/ RR	1002	33.0	3.36	28.2	26.9
PM HS 26	953	32.0	3.22	28.0	22.1
Difference	49**	1.0*	0.14	0.2	4.8**
L.S.D.(.01)	40	0.4	0.15	0.9	2.7
Tests in Mean	21	21	24	21	16

Stormproofness: Scale 0-5; 5 most stormproof

Earliness: Scale 0-99; 99 earliest

Table 4. PM 2326 BG/RR fiber properties in Paymaster Research trials during the 2 year period 1998-1999.

Cultivar	Len. [In.]	Str. [g/tex]	Mic	Elong.
PM 2326BG/ RR	1.010	27.22	4.54	7.02
PM HS 26	1.040	28.54	4.57	7.24
Difference	-0.030**	-1.32**	-0.03	-0.22
L.S.D.(.01)	0.015	0.92	0.20	0.25
Tests in Mean	25	25	25	25