HIGHER QUALITY VARIETY John M. Green and F. Linwood Roberts SEED SOURCE, INC. Stoneville, MS

Abstract

Varietal characteristics including growth and fruiting pattern, lint properties, and comparative yields of LINWOOD, variety being released by Seed Source, are presented herein.

Origin and Breeding History of CT 13

CT-13 is a selection from the cross KNX111xACALA SJ-5. The cross was made in 1986. Bulk populations were used to advance generations to F6 when plants were selected ignoring plant type. The pedigree of CT 13 is (KNX111xACALA SJ-5)B-B-B-B-B-5-4-1-B. After F6 breeding was by the pedigree method, with the current CT-13 from a row bulked in F9. In the following pages "CT-13" and "Linwood" are used interchangeably. Genealogy of KNX111 includes Deltapine 90, McNair 3150, and PeeDee 2165.

Vaviety Description

LINWOOD most closely resembles Deltapine 50, which means it is only medium in height with spreading fruiting branches. Table 1 shows the values of 21 descriptors in LINWOOD and DPL-50. Differences of or close to 20% were rare in this comparison. It does appear that the two varieties were much more alike than different.

2003 PVP

TRAIT	CT-13 E	P-50	% OF 50	TRAIT	CT-13 D	P-50	% OF 50
Nodes to Fr Br	5	5	100	Leaf length	129	131	98
mm to 1st frt br.	120	110	109	Leaf width	192	199	96
veg branch length	49	53	92	Boll length	47	46	102
veg branch nodes	10	8	125	Boll width	33	33	100
node length	4.9	6.6	74	Grams/boll	4.7	5.2	90
frt branch length	21	22	95	Lint %	42	36	115
frt branch nodes	4	5	80	locks/boll	4.7	4.4	105
node length	5.3	4.4	120	Seeds/boll	35	34	103
plant height	61	69	88	Seed index	10	9.9	101
no. nodes	18	19	95	Lint index	6.5	5.5	118
node length	3.4	3.6	93				

Internode Length

Variations in internode length on fruiting branches determine if varieties are cluster, semi-cluster, semi-spreading or spreading in fruiting pattern. Based on lengths of the first internode of fruiting branches, DPL-50 and LINWOOD are essentially identical in the lower 1/3 of the plant, with DPL-50 more spreading in the upper 2/3.

Lint Properties
Table 2 lists spinning test results for LINWOOD, 4 other SEED SOURCE varieties, and 3
commercial checks. Clearly LINWOOD represents a new level of yarn strength. Spinning test
results are from the 2000 crop, normal planting date.

				2.	5 %		
ENTRY	MIKE	E 1	T 1 50	% SL SI	-	YS	YN
LINWOOD	4.8	7.5	24.3	0.59	1.21	144.6	27.3
CT211HQ	3.8	9.8	20.1	0.55	1.14	135	27.7
CT212HQ	3.8	9.8	22.4	0.55	1.17	133.9	27.2
CT110HQ	3.4	8.3	21.6	0.56	1.19	132.7	26.6
CT310HQ	4.1	9.5	22.6	0.57	1.15	132.5	26.3
PSC 355	5.1	10.5	23.4	0.59	1.19	125.1	26.9
SG 747	4.6	10.3	19.9	0.55	1.15	120.4	26.6
SG 125	4.1	9.5	18.8	0.55	1.13	115.3	27.7

Although yield no longer "trumps everything else" it is still an important characteristic. However satisfactory yield is a given for any new lineat home, so wide adaptation takes on meaning. Table 3 includes results of an on-farm test in Texas and multi-location tests in Spain. All of these tests were normal planting date tests; no ultra-early planting.

Comparative Yields

Table 3	3. 2003 UVALDE	COUNTY TEST	SPAIN 5 LOCATION MEAN			
	VARIETY CT210	SC/ ACRE 2970	VARIETY LINWOOD	T.SC PER HA. 6.08		
	CT211	2940	COMMERCIAL	. CHECKS		
	LINWOOD	2815	PANDORA	5.99		
	CT212	2791	LACHATA	5.93		
	FM832	2716	CREMA 111	5.88		
	CT310	2672	CONDOR	5.34		
	FM9898	2615				
	CT110	2582				
	FM958	2284				

Seed Availability

Limited quantities of seed will be available in 2005. Registration of the variety in Europe was by Monsanto Agricultura Espana, and sales in USA will be exclusively by Seed Tec Genetics of Bishop, TX.

Acknowledgements

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