

CORN HYBRID MATURITY RATING FOR ALABAMA

Darrell Williams¹

THE NUMBER OF DAYS a corn hybrid requires from planting to maturity for silage or for grain harvest is an important consideration for farmers. Although seed companies rate their own hybrids, little information is available which compares the maturity of a large number of hybrids grown under the same environmental and cultural conditions.

An experiment was planted at the Plant Breeding Unit near Tallassee, Alabama, to accurately determine for the 89 corn hybrids tested in the regular corn hybrid yield trials the number of days required from planting to silage harvest time (approximately 35 percent moisture in the grain), and to combine ready (approximately 25 percent moisture).

Two rows 30 feet long were planted April 26, 1983. All plots were treated equally with a nitrogen rate of 30 pounds N per acre at planting and 100 pounds N sidedressed. The plant population was 20,000 plants per acre. Weeds were controlled with 3 pounds per acre of Sutan[®] and 1½ pounds per acre of Atrazine[®], along with two cultivations. Ten pounds of Furadan[®] 15 G per acre was applied in furrow at planting for early insect control. Harvest were made twice per week from August 2 through September 9. Each harvest consisted of three ears randomly taken from each plot. The ears were shelled immediately, and moisture measured with a Burrows model 700 digital moisture computer. If the grain was higher in mois-

ture than the meter would read, the grain was weighed at harvest, partially dried, and then reweighed and moisture measured with the Burrows machine. The weight lost during drying was calculated to determine the high moisture values.

The table shows the grain moisture percent measured at each harvest and the days after planting for each harvest date. The boldface moisture readings occurring with each hybrid are the first harvest dates to show a 35 percent, or silage ready grain moisture, and a 25 percent, or combine ready grain moisture. It should be noted, however, that grain over 25 percent moisture cannot be directly marketed and usually must be dried to at least 20 percent before the elevator will accept it in Alabama. A producer may need on-farm drying and/or storage facilities to take advantage of early harvesting of high moisture corn.

The rainfall record at the Plant Breeding Unit during July (the month preceding harvest) and the August through early September harvest period is shown below:

Date	Inches	Date	Inches	Date	Inches
July 1	0.52	August 1	0.08	September 1	1.00
5	.13	2	.45	2	.04
16	.96	3	trace	3	.42
18	trace	4	.06	5	.60
19	.03	5	trace	6	.97
24	trace	11	.76		
25	1.49	22	trace		
31	.75	25	.04		
		27	trace		

¹Technical Assistant, Department of Agronomy and Soils.

Corn Grain Moisture Percentage From Twelve Harvests, and Days From Planting to Harvest on 89 Hybrids Planted at Tallassee, Alabama, April 26, 1983

Brand	Hybrid	Pct. moisture, by harvest date and days after planting ¹												Ranking ²
		8/2 (99)	8/5 (102)	8/9 (106)	8/12 (109)	8/16 (113)	8/19 (116)	8/23 (120)	8/26 (123)	8/30 (127)	9/2 (130)	9/6 (134)	9/9 (137)	
Asgrow	RX 114	53	49	41	31 ³	34	28	27	24	23	23	23	22	4
	RX 405W	65	50	47	44	38	35	30	34	27	26	24	24	7
	RX 777	50	42	36	35	27	27	25	23	17	20	21	19	3
	RX 962A	56	48	40	39	35	35	28	28	27	25	25	24	6
Coker	16	50	45	39	37	31	31	25	24	17	18	19	18	3
	19	57	50	38	36	30	28	22	19	15	18	18	18	3
	19A	51	46	37	39	30	27	25	22	17	17	19	20	3
	21	51	48	40	41	30	29	27	24	21	22	21	20	4
	22	58	48	41	40	30	29	24	26	20	22	18	19	3
	77B	64	52	48	43	37	34	35	34	25	24	25	24	5
	833W	56	44	44	43	36	33	31	30	28	25	23	24	6
DeKalb	XL71	54	45	41	37	31	31	24	26	20	20	20	20	3
	TXS115A	53	48	44	37	31	27	24	23	16	18	20	17	3
	T1230	56	49	44	41	36	31	27	27	23	23	25	21	5
FFR	848C	57	50	40	44	31	28	27	24	19	20	21	20	4
	905C	62	53	42	40	34	27	28	25	22	23	25	21	4
	929W	58	50	50	44	38	37	29	32	24	25	25	24	5
Funks	G-4522	52	46	39	38	28	28	27	22	18	18	18	18	4
	G-4507A	52	46	34	35	29	27	20	18	18	17	20	17	3
	G-4578	48	42	37	37	31	29	24	22	18	19	20	18	3
	G-4589	52	46	41	40	33	28	24	23	16	19	22	18	3
	G-4611	47	44	35	35	29	25	24	21	17	16	18	18	2
	G-4689	49	45	40	38	31	32	27	27	18	22	21	19	5
	G-4787W	66	55	46	40	36	34	28	28	26	22	23	24	6
	G-4740A	54	47	38	40	31	28	29	27	22	23	23	20	5



**Corn Grain Moisture Percentage From Twelve Harvests, and Days From Planting to Harvest on 89 Hybrids
Planted at Tallassee, Alabama, April 26, 1983**

Brand	Hybrid	Pct. moisture, by harvest date and days after planting ¹											Ranking ²	
		8/2 (99)	8/5 (102)	8/9 (106)	8/12 (109)	8/16 (113)	8/19 (116)	8/23 (120)	8/26 (123)	8/30 (127)	9/2 (130)	9/6 (134)		9/9 (137)
Funks	G-4733	46	45	42	39	30	30	28	26	24	20	24	21	5
	G-4747W	55	48	40	40	31	30	28	28	21	24	22	22	5
	G-4779W	62	49	41	40	38	33	29	30	22	21	21	22	5
Gold Kist	GK 615	46	42	39	33	26	25	19	18	14	15	18	17	2
	GK 695	48	48	37	35	29	27	23	20	17	16	18	17	3
	GK 868	56	47	39	38	32	29	25	25	16	20	24	21	3
	GK 875	60	49	42	41	29	29	28	27	21	21	21	20	5
	GK 925	58	50	40	42	32	30	24	27	21	23	21	21	3
Golden Harvest	H2500	55	46	39	38	28	27	22	21	16	19	21	17	3
	H2660W	55	48	43	41	30	32	28	30	27	27	22	22	7
	H2680	57	48	44	42	30	32	25	25	23	22	22	21	3
	H2686	58	50	40	38	32	31	28	25	22	23	23	21	4
	H2275A	51	46	37	37	32	34	31	27	26	22	23	22	6
H2745	51	46	40	38	30	32	26	27	27	22	22	23	6	
Jacques	JX167	47	45	37	37	27	26	20	19	14	15	17	18	3
	JX180	52	48	37	36	29	27	21	22	16	16	18	18	3
	JX247	58	50	41	42	34	30	25	27	24	21	23	21	3
	7780	52	49	42	38	31	28	23	22	17	17	21	18	3
	7900	49	43	34	35	28	26	24	19	16	16	17	17	3
	8400	49	46	42	40	30	31	30	26	20	24	23	22	5
McCurdy	84AA	57	47	40	37	33	30	27	24	27	21	22	19	4
	5596	49	36	37	32	23	23	19	15	13	15	16	17	1
	7978	53	46	39	38	30	30	26	23	20	18	20	20	4
	81-34	56	46	38	38	31	32	26	26	21	16	17	18	5
	8150	51	45	42	38	30	32	25	27	25	22	22	21	3
	8172	58	46	31	41	37	34	29	29	24	24	22	22	5
	82-21	60	49	43	41	37	35	30	32	28	25	25	24	6
Northrup King	PX 74	60	46	41	37	29	26	24	27	14	18	17	19	3
	PX 79	54	52	39	38	30	29	24	24	17	17	20	17	3
	PX 83	54	44	41	36	31	28	27	23	22	22	20	22	4
	PX 87	55	46	40	42	37	29	28	24	23	22	18	22	4
	PX 95	63	55	44	43	34	34	31	30	27	23	23	22	6
	9415	45	40	34	32	23	24	20	19	14	14	16	16	1
	9527	55	46	40	40	31	39	24	22	17	20	19	17	3
O's Gold	2570	54	46	37	37	29	29	25	19	20	19	21	18	3
	6882	55	47	37	39	30	26	24	20	18	17	19	17	3
PAG	SX 239	50	39	31	31	22	21	19	17	13	15	17	16	1
	SX 275	50	44	38	34	30	27	22	18	16	16	18	17	3
	SX 351	53	50	37	37	27	27	21	22	16	15	18	17	3
	SX-373	52	51	40	40	32	34	27	25	21	19	21	18	4
Paymaster	8951	56	44	40	40	30	31	28	25	20	24	25	20	4
	9902	61	54	45	44	34	35	31	30	28	24	26	22	6
	12052A	62	51	42	43	39	40	36	39	32	29	27	26	8
Pioneer	519	54	48	46	43	38	35	29	29	23	25	24	22	5
	3147	62	50	45	44	33	34	33	30	28	22	23	24	6
	3165	56	48	42	40	32	33	30	28	25	20	22	23	5
	3184	52	44	37	39	32	29	26	24	21	21	20	18	4
	3187	55	48	41	42	34	28	26	26	20	22	20	19	5
	3320	54	46	36	39	31	31	27	27	17	23	23	19	5
	3358	49	45	38	36	28	30	26	25	22	20	22	20	4
	3369A	50	45	36	36	27	27	23	22	16	18	20	19	3
	Ring Around	1404	54	49	39	37	31	27	22	20	16	16	18	20
1502		54	47	41	36	31	28	25	24	21	21	20	20	3
1604		56	50	44	41	33	30	27	23	22	24	21	21	4
2602W		56	49	40	42	32	31	32	29	26	25	25	22	6
2606W		53	44	39	38	31	33	29	30	27	22	23	24	6
3605W		56	46	44	43	39	33	31	31	24	23	21	22	5
Todd	M95	60	50	44	44	31	33	30	27	24	24	25	20	5
	M5505	51	44	40	39	33	28	23	23	18	18	20	18	3
	M7300	55	47	38	39	31	27	22	22	16	17	18	17	3
	M8800	49	46	38	38	30	32	23	24	18	16	19	19	3
Zimmerman	Z11W	56	49	43	40	34	32	30	29	27	24	21	24	6
	Z52W	54	48	41	42	36	33	32	34	27	24	24	24	6
	Z53W	57	50	45	42	37	34	30	33	26	25	27	22	6
Mean moisture pct.		54	47	45	39	32	30	26	25	21	21	21	20	

¹Numbers in parenthesis are days from planting to harvest for each harvest date.

²Ranking of 1 to 8: 1= earliest maturing hybrid, 8= latest maturing hybrid. Hybrids having the same number matured on the same harvest date.

³The two bold numbers for each hybrid identify the first harvest dates to show a 35 percent and 25 percent grain moisture content (silage ready and combine ready, respectively).

Information contained herein is available to all persons regardless of race, color, sex, or national origin.