

# Corn Talk News RESEARCH UPDATE



## GROWING DEGREE DAYS AND LATE PLANTED CORN

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At the recent American Seed Trade Association annual corn and soybean conference, Purdue agronomist Bob Nielsen recently reported his findings on a study that evaluated the effect of planting date on growing degree accumulations for corn.

This research showed that when planting was delayed from early May to early June, the growing degree days required for hybrids to reach 50 percent silk and black layer decreases. Growing degree day requirements to 50 percent silk were reduced by an average or 64 GDDs and later plantings tended to have 1 to 2 fewer leaves.

Growing degree day requirements during the grain fill phase were also reduced from 9 to 9 GDD per day of planting day delay.

Overall GDD requirements from planting to black layer were reduced from 2 to 10 GDD per day of planting delay. If we assume an average reduction in the GDD requirement of about 5 GDD per day, then a 40 day delay in planting would reduce the GDD requirement from 2700 GDD for a full season hybrid in late April to 2500 GDDs in early June.

What does all this mean? It means that hybrids seem to adjust somewhat to the shorter season by reducing the amount of GDDs they need to mature. It also means that we may not

necessarily need to switch to hybrids as early as GDD requirements might dictate. The experience of growers and seedsmen I've talked to appears to support this concept. Our research in Pennsylvania has shown similar results with one difference. Here, hybrids will mature in fewer GDDs than they are rated at even when planted in early May. For example, in a two year study we conducted, a hybrid rated at 2850 GDDs matured in two seasons at 2621 GDDs in Lancaster County.

At Rockspring, when we

delayed the planting of three 92 to 97 day hybrids for 20 days, they required about 125 GDDs less than in early May. This translates into about 6 GDD/day of planting date delay, consistent with the results of the Purdue study.

These results indicate that GDD requirements are only a rough guide to predicting hybrid maturity since they vary somewhat depending on location and planting date. Also, ratings of hybrids conducted in the midwest often overestimate the requirement in Pennsylvania by about 200 GDDs.

## Mercer County Lists Crop Yields

MERCER (Mercer Co.) — Following are the results of several area corn plots that were received at the extension office over the last couple of weeks.

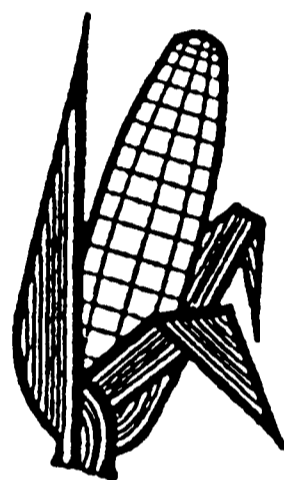
Some of the plots are company demonstration plots and

some have hybrids from several different companies in them. These should not be taken as an endorsement of any one hybrid or company over another, but only as information that may help you in making the right decisions in your corn produc-

tion for next year.

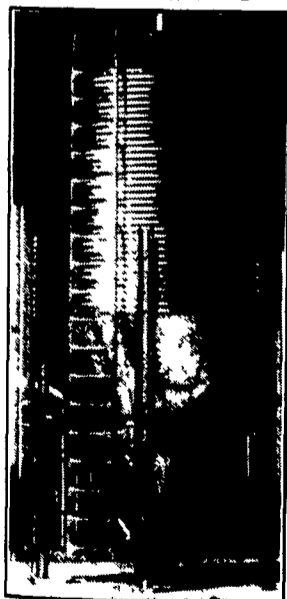
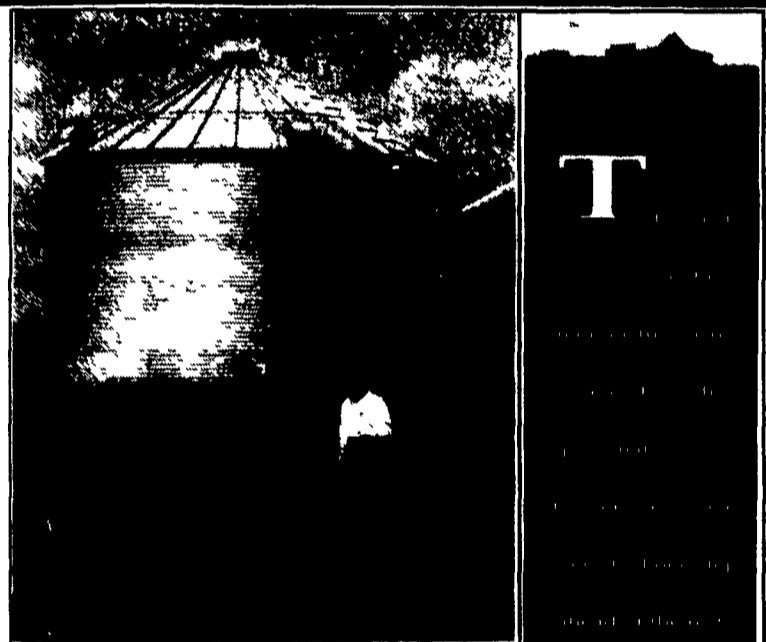
Cooperator: Jim Woods  
County: Mercer  
Planted: 5/3/94  
Harvested: 11/9/94  
Harvest Population: 23,400  
Row Width: 30"  
Previous crop: Corn  
Fertilizer: 19-38-38  
Manure: 12-15 ton liquid/acre  
Herbicide: Prowl, + Atrazine, + Harness

Brand/Hybrid	% Moisture	Test Weight	Yield @ 15.5%	\$ Income
Pioneer 3845	20.4	54.0	144.0	296.56
Agway 454	22.3	53.0	145.6	294.52
Agway 310	22.3	54.0	156.4	316.36
Pioneer 3751	22.5	52.5	174.3	351.58
Doebler 52XP	23.1	52.0	175.7	351.38
Doebler 55XP	25.3	56.0	155.2	303.72
Pioneer 3525	25.4	53.0	179.9	350.49
Doebler 57XP	26.4	52.5	153.8	296.65
Pioneer 3394	27.1	54.0	208.7	399.15
Doebler 64XP	28.4	54.0	178.3	336.68
Agway 578	29.5	55.0	157.0	291.67
Doebler 62XP	29.6	50.5	186.8	345.29
Doebler 66XP	29.9	53.0	182.8	337.14
Doebler 73XP	31.6	54.0	170.1	306.80
Doebler 75X	32.5	55.5	172.0	305.75
Doebler 69XP	33.5	53.0	172.4	302.31
Average	26.86	53.5	169.56	324.13



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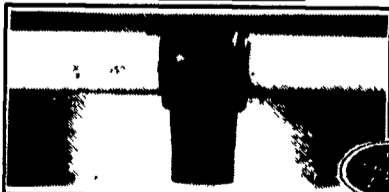
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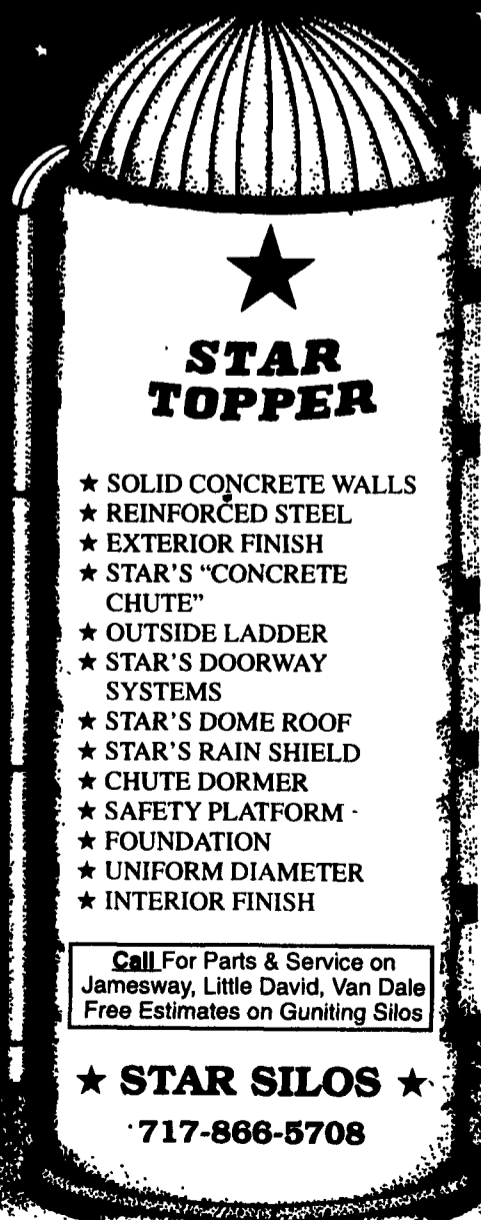
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