

Corn Planting Date Considerations for Southern Minnesota

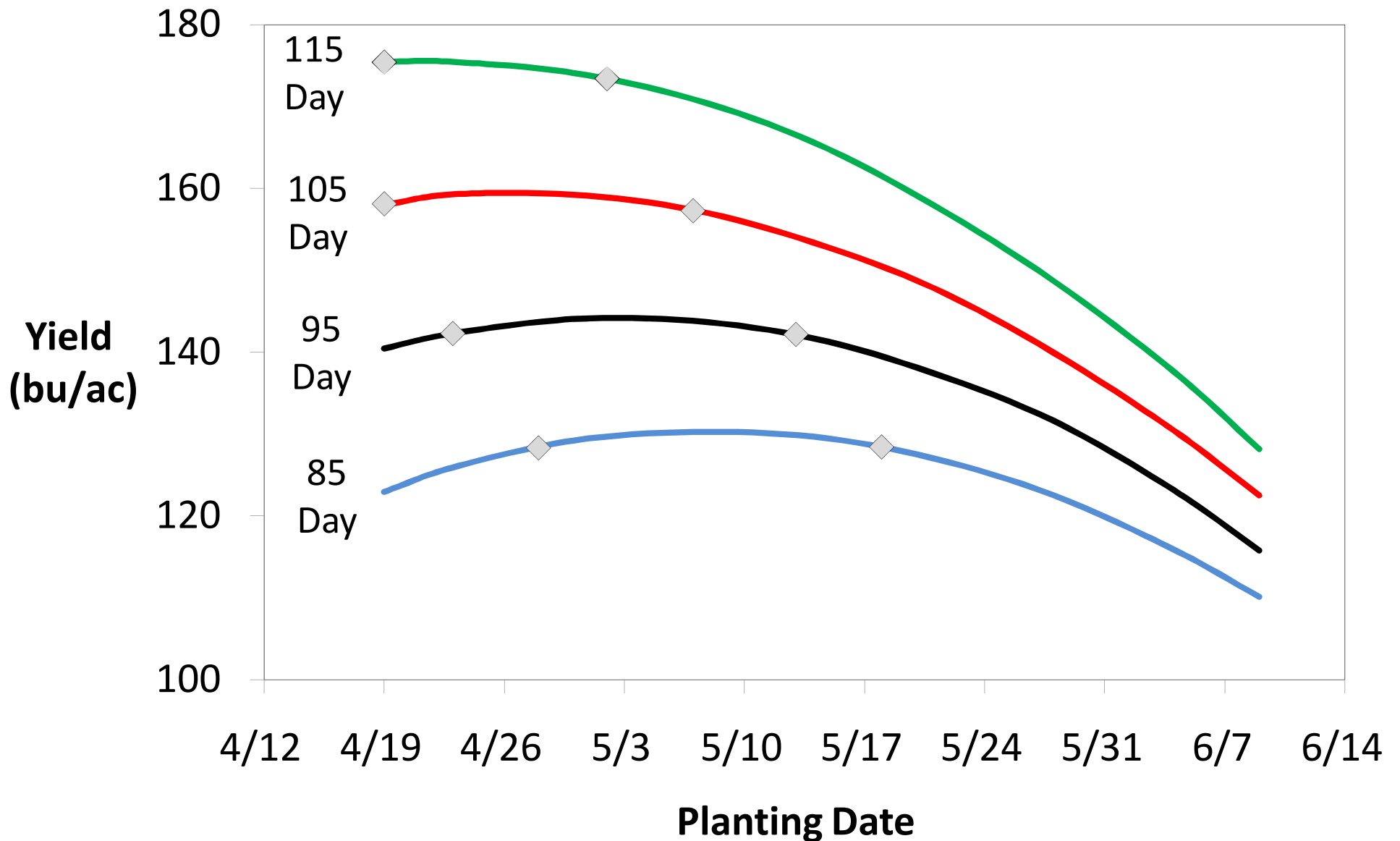
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EXTENSION

Corn yield as affected by planting date and maturity (Lamberton and Waseca)



Source: Buaha et al., 1995

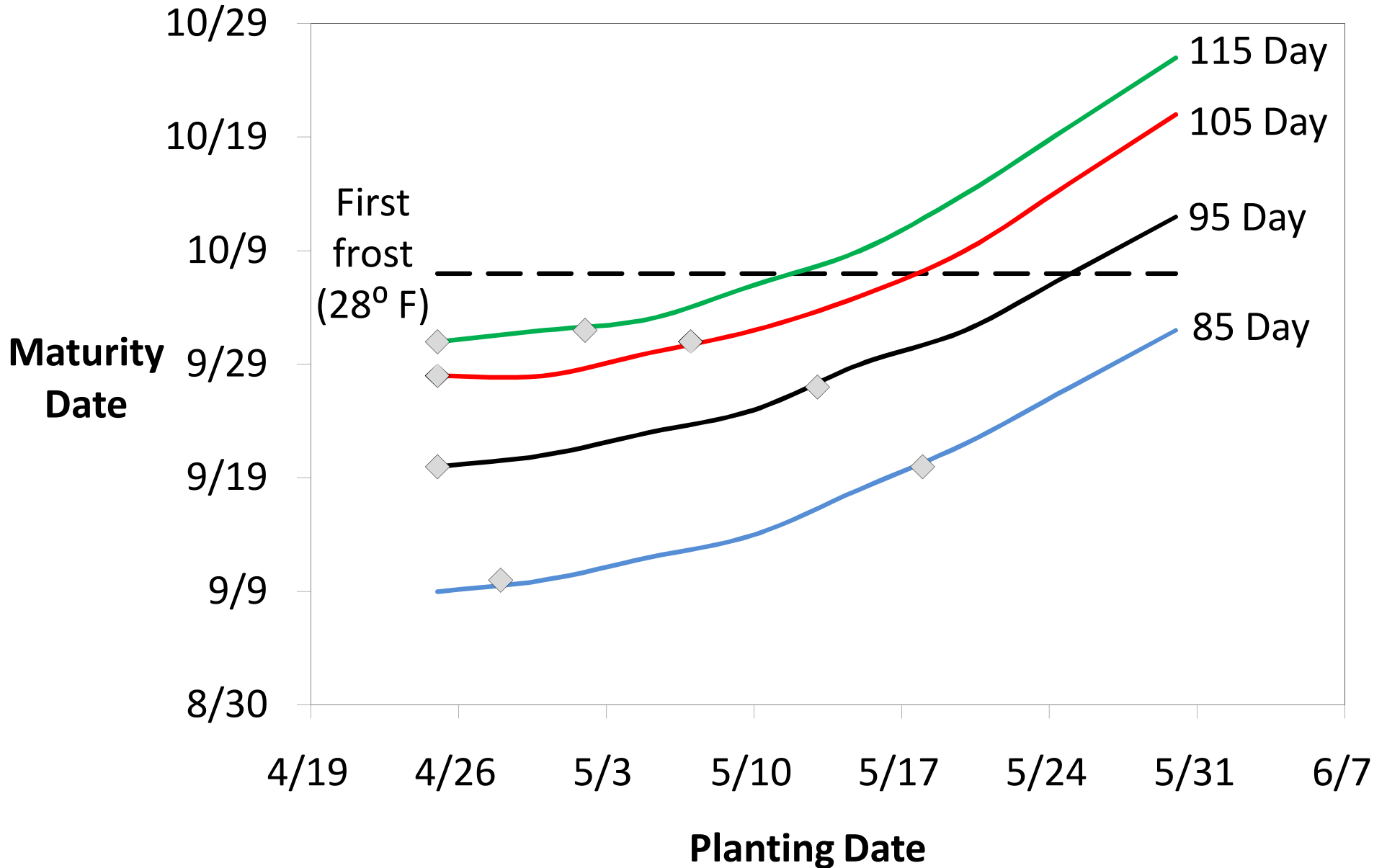
Optimum planting dates

(within 2 bu/ac of the maximum yield)

Relative maturity	Optimum planting interval	Length of interval
115 day	April 19 - May 2	14 days
105 day	April 19 - May 7	19 days
95 day	April 23 - May 13	21 days
85 day	April 28 - May 18	21 days

About 50% of days are suitable for fieldwork during late April and early May

Corn maturity as affected by planting date



Source: Dale Hicks

Rule of thumb for southern MN

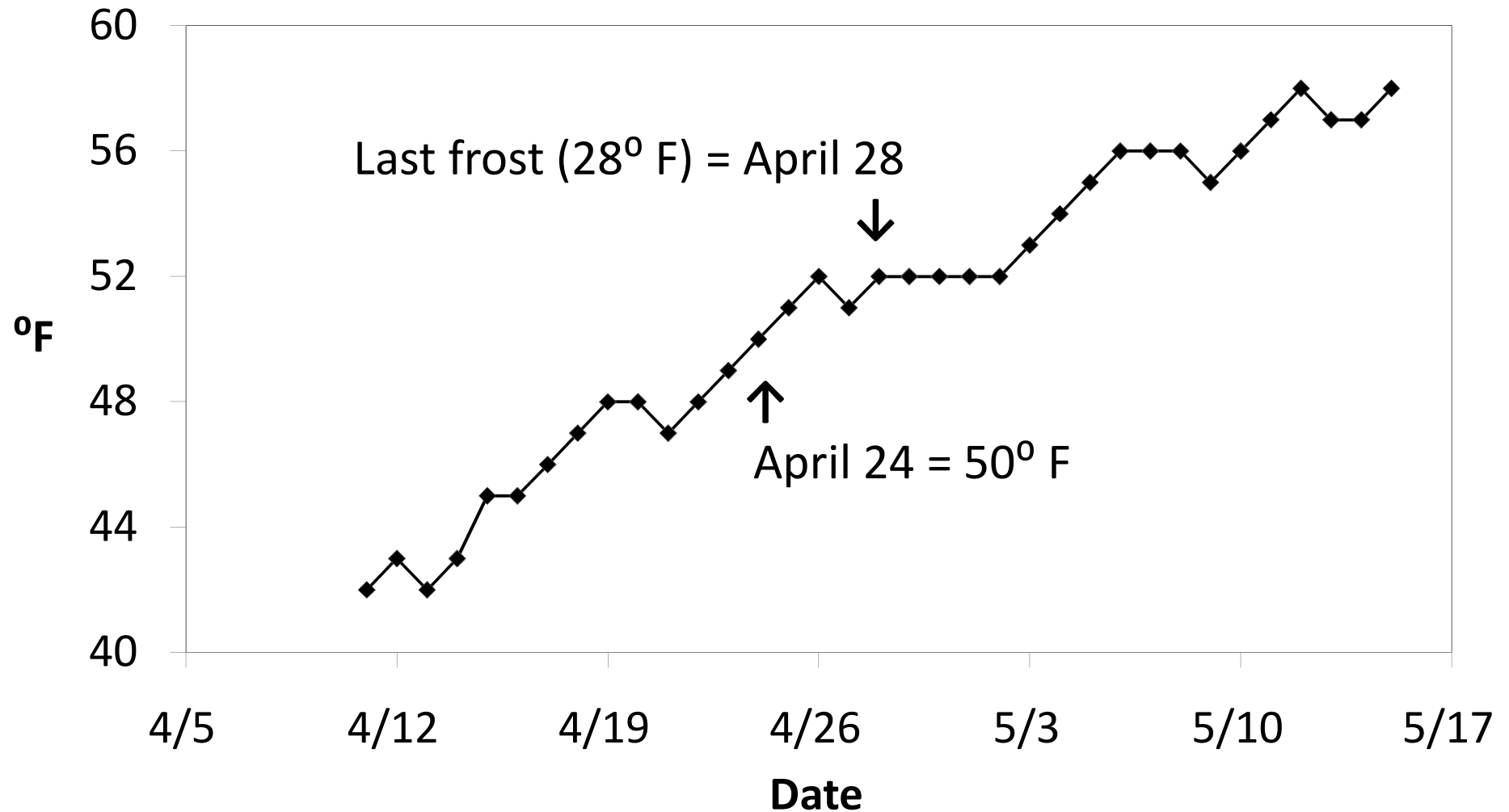
Planting date	Yield potential (%)
April 25	100
April 30	99
May 5	97
May 10	94
May 15	91
May 20	88
May 25	86
May 30	83
June 4	77
June 9	71
June 14	65
June 19	59

Source: Hicks et al., 1999

Recommended maturities for late planting in southern MN

Planting date	Relative maturity units earlier than full season
May 25 - 31	5 - 7
June 1 - 10	8 - 15
June 11 - 15	15 or more

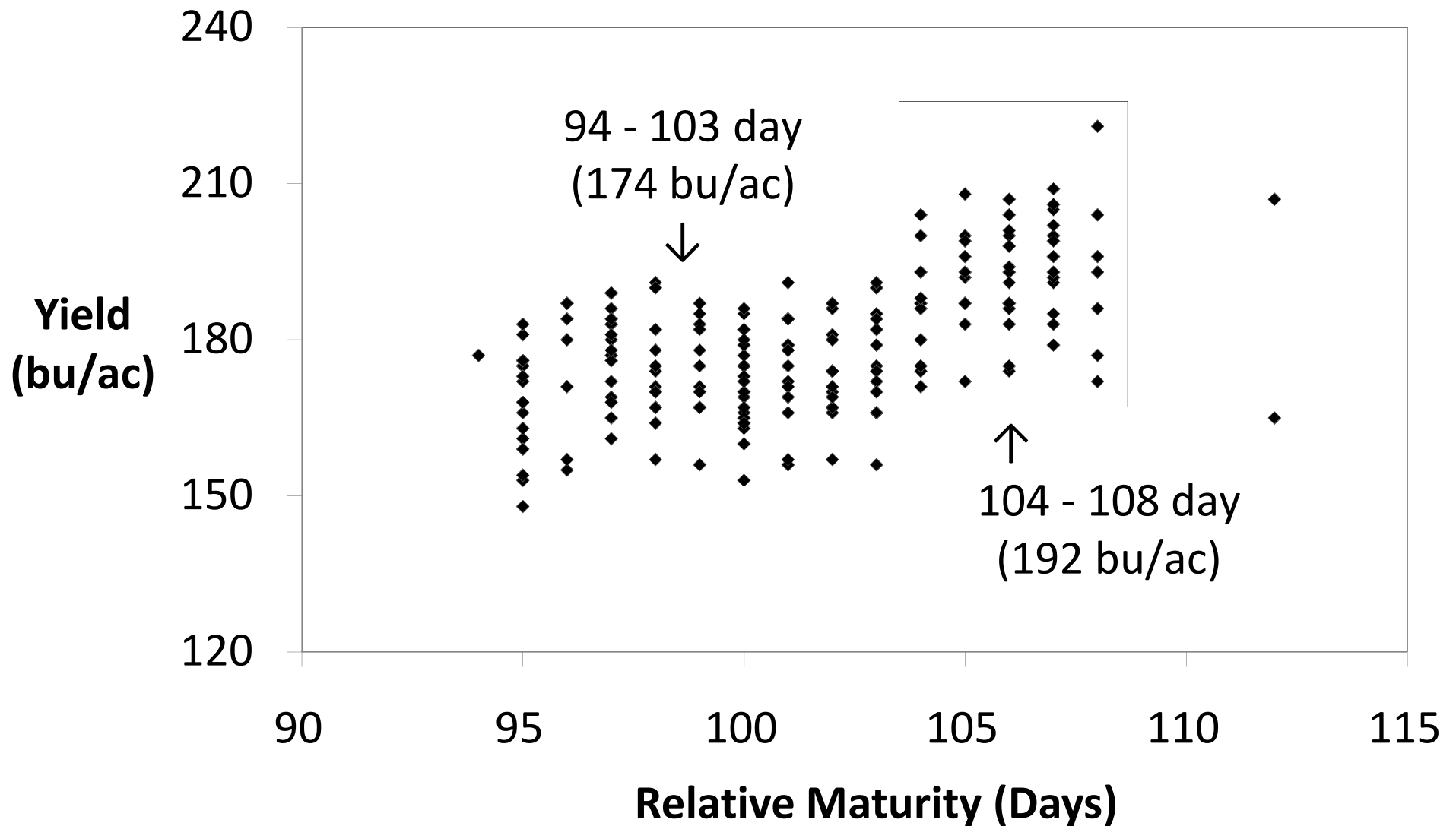
Soil temp. at 4 inches (Lamberton: 1973-2003)



In late April, ignore soil temperature and plant as soon as field conditions allow.

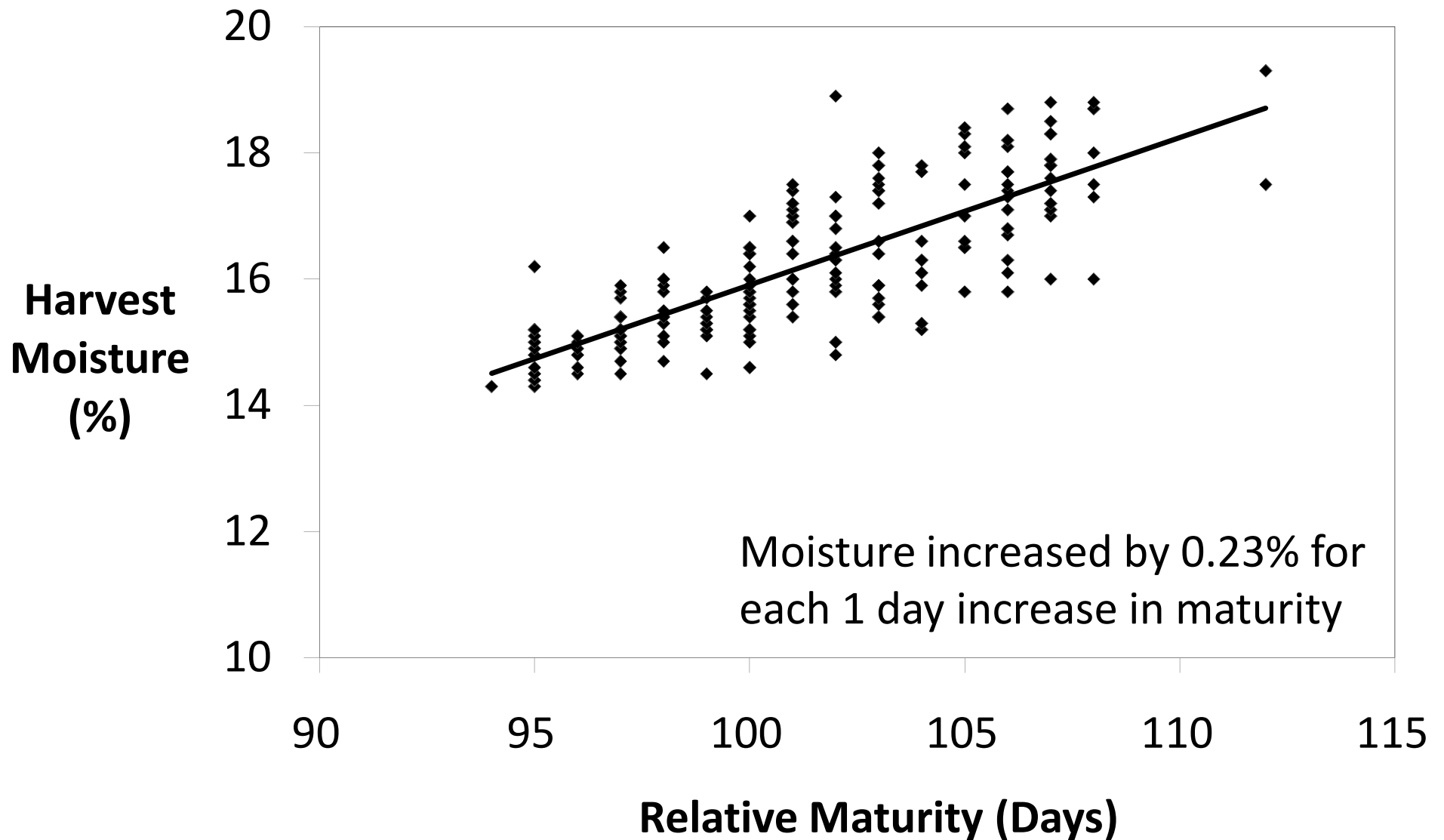
2007 University of MN Hybrid Trial

(Lamberton, Rochester, Waseca)



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A bad stand planted early is better than a perfect stand planted late!

Example:

- Planting date: April 25 = No yield loss
 - Plant population: 20,000 plants/ac = 16% yield loss
 - Gaps less than 2 feet = No yield loss
- Total = 16% yield loss
- Assuming a perfect stand (30,000 plants/ac or more)....
 - May 25 planting date = 14% yield loss
 - May 30 planting date = 17% yield loss
 - June 4 planting date = 23% yield loss

Current research at Lamberton and Waseca

(data below from Waseca)

Planting date	Emergence	----- June 20 -----		----- July 2 -----	
		Extended leaf ht.	Stage	Extended leaf ht.	Stage
April 30	88%	28"	V7	49"	V10
May 14	90%	24"	V6	41"	V8
May 28	95%	12"	V4	34"	V6

References

Buaha, G.T., J. Apland, and D. Hicks. 1995. A regression analysis of the effects of planting date and variety on corn yields in Minnesota [Online]. Available at <http://ageconsearch.umn.edu/bitstream/13872/1/p95-10.pdf> (verified 10 Sep. 2008). Univ. of Minnesota, St. Paul.

Hicks, D.R., S.L. Naeve, and J.M. Bennett. 1999. The corn growers field guide for evaluating crop damage and replant options [Online]. Available at <http://www.soybeans.umn.edu/pdfs/CornGuide.pdf> (verified 10 Sep. 2008). Univ. of Minnesota, St. Paul.