May 26, 2011 Ohio Dept. of Ag. Meeting

OSU Extension's response to Ohio's planting season problems – Corn

P.R.Thomison, Corn Cropping Systems Extension Specialist (thomison.1@osu.edu)

THE OHIO STATE UNIVERSITY
OARDC
EXTENSION

Delayed planting effects on corn performance in Ohio

Estimated yield loss due to planting delays varies from about one bushel per acre after the first week of May to nearly two bushels per acre by the end of May These yield losses can be attributed to a number of factors including a shorter growing season, and the potential for greater disease and insect pressure and drought stress during pollination and grain fill. Results of recent OSU studies evaluating late planting effects are shown in figure 1.

During the past 30 years (table 1), Ohio farmers have experienced significant planting delays in nine years (1981, 1983, 1989, 1995, 1996, 2002, 2008, 2009, and 2011). In six of those years, corn yields were below the trend line yield, from 5 bushels per acre (in 1995) to 56 bushels per acre (in 2002, which saw a near record-low harvest of 88 bushels per acre). In 2009, there was a 15-bushel-per-acre jump over the trend line yield. That year -- when just 42 percent of the corn crop was planted by May 20 -- saw a record state yield of 174 bushels per acre.

Planting date is one of many factors that influence corn yield.
Favorable weather conditions subsequent to planting may result in late-planted crops producing above average yields as was case in 2009. If late planted corn experiences severe moisture stress during pollination and grain fill, then yields may be significantly lower than average.

Recommendations for optimizing the profitability of late planted corn

Consider management alternatives so that planting is not further delayed when favorable planting conditions occur and economic returns from various inputs are optimized –

- Avoid high-end range N rates on corn following soybean.
- Side-dress anhydrous N or UAN liquid solutions and apply a minimum of 30 lb/N broadcast or banded to stimulate early seedling growth
- Place starter applications of P and K in bands two inches to the side and two inches below the seed. Remember application of P and K is only necessary with starter if they are deficient in the soil
- Keep time expended on tillage passes and other preparatory operations to a minimum. Such work will provide minimal benefits if it results in further planting delays.
- Switch to an adapted short season hybrid. Recent evaluations indicate there are some 100-104 day relative maturity hybrids with excellent yield potential.
- Reduce seeding rates. As planting is delayed, seeding rates may be lowered to 3 to 5% higher than the desired harvest population. Recent OSU studies suggest little benefit from increasing plant populations above 30,000 plants/A in June.

Why don't we see greater yield losses with late plantings?

Favorable late season weather conditions
More stress tolerant hybrids
Better hybrid stalk quality
Better disease resistance
Transgenic Bt-ECB trait
Other cultural practice improvements

Current OSU Research on Managing Late (June) Planted Corn

We are evaluating the following....
Agronomic potential of short season corn hybrids
Corn response to seeding rate as affected by planting date, nitrogen and foliar fungicides
Planting date effects on heat unit requirements of adapted maturity hybrids

Figure 1. Late planting effects on yield of April/May vs. early/mid June plantings, recent OSU studies, 2005-2010.

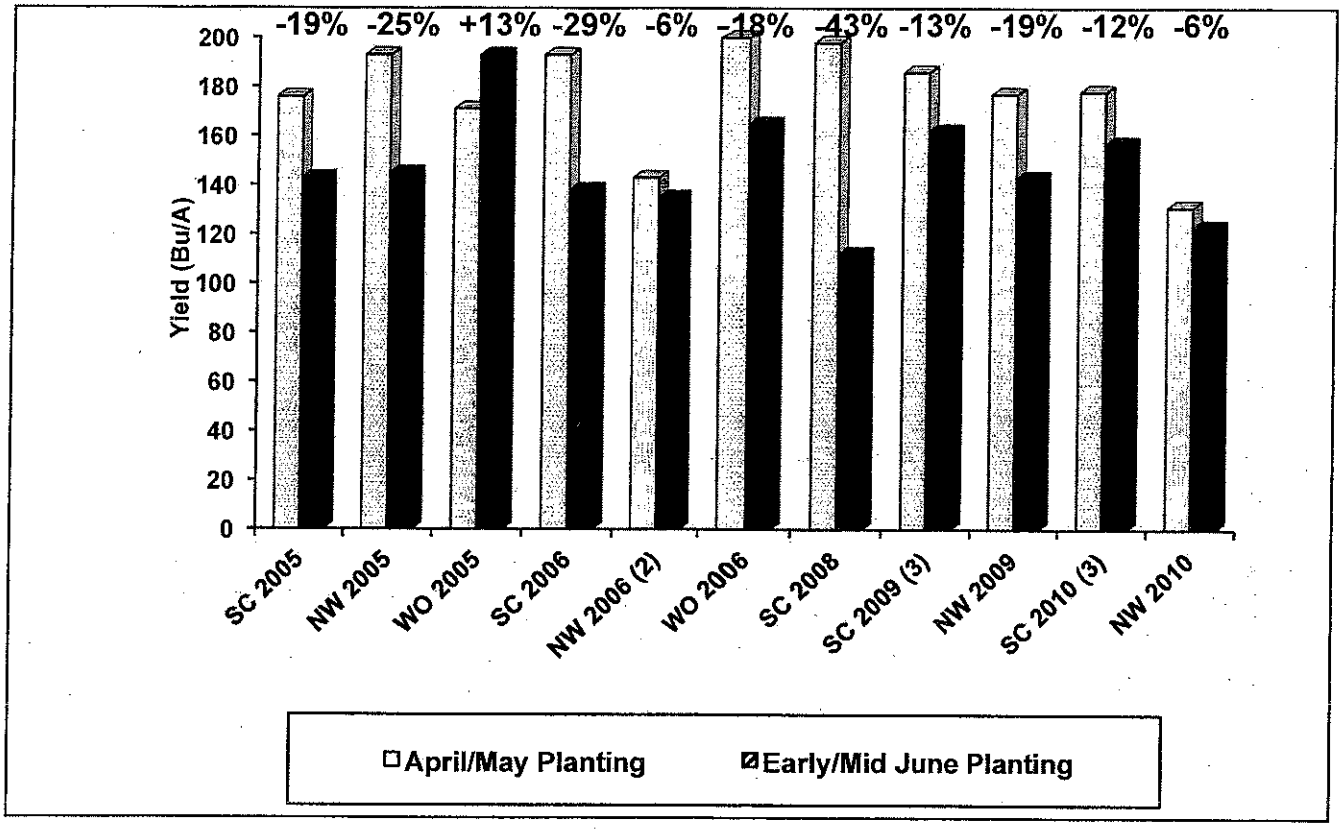

Table 1. Performance of Ohio's "late planted" corn crops– yield.

Year	% of Crop Planted by May 20	% of Crop Planted by May 30	50% Planting Date	Yield (Bu/A)	Avg. Yield of Previous 5 Years	Departure from Yield Trend (Bu/A)
1981	30	55	May 26	96	108	-10
1983	45	65	May 22	80	109	-36
1989	22	40	June 4	118	116	0
1995	60	77	May 19	121	122	-5
1996	10	54	June 1	111	122	-15
2002	22	58	May 28	88	138	-56
2008	50	66	May 20	135	153	-7
2009	42	95	May 22	174	149	15

Data Source: National Agricultural Statistics Service USDA/NASS (http://www.nass.usda.gov/)

May 26, 2011 Ohio Dept. of Ag. Meeting
OSU Agronomic Crops Team's response to Ohio's delayed planting season.
Harold Watters, AgNR Champaign County & Agronomic Crops Team coordinator (watters.35@osu.edu)
Greg LaBarge, AgNR Fulton County & Agronomic Crops Team coordinator (labarge.1@osu.edu)

Agronomic Crops Network, by the Agronomic Crops Team

Home of the C.O.R.N. (Crop Observation & Recommendation Network) newsletter (http://agcrops.osu.edu and http://corn.osu.edu)

Access to our members: http://agcrops.osu.edu/find-an-expert

The OSU Extension Agronomic Crops Team is a group of 40 members who work in the field at the county level and on OSU campuses at Wooster and Columbus. County educators often bring the concerns of their local growers to the attention of state specialists – together we develop and disseminate information for Ohio's agronomic crop growers. Members span departments of Plant Pathology, Horticulture & Crop Science, School of Environment & Natural Resources, Agriculture & Environmental & Development Economics, Food, Agriculture & Biological Engineering, and others.

A Monday morning conference call generates a Tuesday morning newsletter (C.O.R.N.) every week during the growing season. Our Agronomic Crops Team website delivers links to our publications, to videos, to area blogs and to more in-depth information beyond the recommendations we make in the newsletter.

Decision Resources and Tools for 2011 Late Planting

CORN

Optimizing the Profitability of Corn Planted in June. Peter Thomison & Robert Mullen. Available at: http://corn.osu.edu/newsletters/2011/corn-2011-14/optimizing-the-profitability-of-corn-planted-in-june-added-may-25

Adjusting Corn Management Practices for a Late Start. Peter Thomison & Robert Mullen. Available at: http://corn.osu.edu/newsletters/2011/2011-10/adjusting-corn-management-practices-for-a-late-start

Will Planting Delays Require Earlier Maturing Corn Hybrids? Peter Thomison. Available at: http://corn.osu.edu/newsletters/2011/2011-11/will-planting-delays-require-earlier-maturing-corn-hybrids

Growing Degree Days Available for Late Corn Plantings. Peter Thomison. Available at: http://corn.osu.edu/newsletters/2011/2011-11/growing-degree-days-available-for-late-corn-plantings

Delayed Planting Effects on Corn Performance: A "Historical" Perspective. Allen Geyer & Peter Thomison. Available at: http://corn.osu.edu/newsletters/2011/corn-2011-13/delayed-planting-effects-on-corn-performance-a-201chistorical201d-perspective

SOYBEANS

We Don't have Time to Plant Twice. Anne Dorrance. Available at: http://corn.osu.edu/newsletters/2011/corn-2011-11/we-don2019t-have-time-to-plant-twice

Switching to Soybeans? Some Points to Consider. Anne Dorrance & Robert Mullen. Available at: http://corn.osu.edu/newsletters/2011/corn-2011-14/switching-to-soybeans-some-points-to-consider

FORAGES

Is it Too Late to Plant Forages? Mark Sulc. Available at: http://corn.osu.edu/newsletters/2011/2011-11/is-it-too-late-to-plant-forages

Supplemental Forage Options for Planting in Spring to Mid-Summer. Mark Sulc. Available at: http://corn.osu.edu/newsletters/2011/corn-2011-11/supplemental-forage-options-for-planting-in-spring-to-mid-summer

WEED CONTROL

Adjusting No-Till Burndown Programs for Later Planting. Mark Loux. Available at: http://corn.osu.edu/newsletters/2011/2011-10/adjusting-no-till-burndown-programs-for-later-planting

Late Planting Weed Control Issues. Mark Loux. Available at: http://corn.osu.edu/newsletters/2011/corn-2011-13/late-planting-weed-control-issues

INSECTS

Current Insect Conditions and Late Planting Concerns. Ron Hammond, Andy Michel & Mark Sulc. Available at: http://corn.osu.edu/newsletters/2011/corn-2011-14/current-insect-conditions- and-late-planting-concerns

CROP INSURANCE

New Decision Aid to Determine Late Planting Options. Chris Bruynis, Extension Educator and Barry Ward, Leader Production Business Management. Available at: http://ohioagmanager.osu.edu/farm-policy/new-decision-aid-to-determine-late-planting-options/

Prevented and Late Planting Provisions in Crop Insurance. Gary Schnitkey, University of Illinois. Substitute the late planting date of June 5 for Corn and June 20 for Soybeans in Ohio with this resource. Available at: http://www.farmdocdaily.illinois.edu/2011/05/prevented_and_late_planting_pr.html

Spring 2011 Forage Concerns and Questions, May 26, 2011 Ohio Dept. of Ag. Meeting
Mark Sulc, Extension Forage Specialist (sulc.2@osu.edu)

- Many of the effects of this spring's weather on forages will be long-term in some cases, impacting not only this year's production but coming years as well. This is a reflection of the perennial nature of forages.
- Spring forage seedings were not possible for most producers.
- What emergency/supplemental annual summer forages to plant?
- Damage to pastures and feeding, watering, and gate areas due hoof traffic on wet, soft soils...how to cope with the mud and avoid permanent damage.
- Forage quality in pastures has been adversely affected because of inability to graze evenly this spring and inability to clip pastures. Grazing management systems have been disrupted significantly. This can have adverse effects on livestock productivity and pasture utilization efficiency.
- First cutting of hay...forage quality is declining rapidly due to maturity and leaf diseases. Wheel traffic has damaged fields that have been harvested before soils were sufficiently dry. There are concerns with harvest timing once soils begin to dry...lodged stands and leaf diseases accumulating vs. getting on the field too soon when crown damage from traffic is possible.
- Spring fertilizer applications were often not made to forages, how will this impact on yield?
- Extended period of wet soils and even flooding in some hay fields and pastures have adversely affected forage stand and vigor. Stand loss is especially likely in established alfalfa stands, which will become more apparent over the summer months.
- Pasture fence systems are damaged in some areas, resulting from flooding and falling trees.

OSU Extension Response by Integrated Forage Management Team

- Statewide and local news articles have been written published dealing with many of the questions and concerns listed above. These have been published both in electronic newsletters as well as in local newspapers. Interviews have been provided to various newspaper writers. More than 25 articles have been published over the past two months covering hay and grazing management issues.
- Information has been disseminated via local radio and TV programs.
- Extension educators and state specialists have answered one-on-one questions over the phone and in person.
- Producer meetings are being held in several counties to discuss the issues listed above and how to develop management plans to deal with them.
- Field days are planned for later in the summer to demonstrate summer forage options.
- Information dealing with current issues/concerns can be found at the following websites:
  - http://forages.osu.edu
  - http://beef.osu.edu
  - http://dairy.osu.edu
  - http://ohioforages.blogspot.com/2011/05/grazing-wet-pastures.html

THE OHIO STATE UNIVERSITY

Department of Agricultural, Environmental, and Development Economics

Agricultural Administration Building
2120 Fyffe Road
Columbus, OH 43210-1067

Phone (614) 292-7911
Fax (614) 292-4749
http://aede.ag.ohio.state.edu/

May 26, 2011 Ohio Dept. of Ag. Meeting

Barry Ward, Production Business Management Leader (ward.8@osu.edu)
Resources – Late and Prevented Planting Issues - 2011

OSU Extension/Department of Agricultural, Environmental and Development Economics

Enterprise Budgets
http://aede.osu.edu/Programs/FarmManagement/Budgets/index.htm

Ohio Ag Manager Newsletter
http://ohioagmanager.osu.edu/

Crop Insurance: What are the Preventative Planting Rules?
http://ohioagmanager.osu.edu/farm-policy/crop-insurance-what-are-the-preventative-plant-rules/

New Decision Aid to Determine Late Planting Option
http://ohioagmanager.osu.edu/farm-policy/new-decision-aid-to-determine-late-planting-options/
Estimated Yield and Profit by Planting Date – Corn, Soybeans or Preventative Planting Crop Insurance Decision Aid

Prevented and Late Planting Provisions in Crop Insurance
http://www.farmdocdaily.illinois.edu/2011/05/prevented_and_late_planting_pr.html

Supplemental Agricultural Disaster Assistance in Food, Energy and Conservation Act of 2008
http://aede.osu.edu/resources/docs/pdf/J2QIF808-OR3A-20GS-RT1CIID0JXDFJGJN.pdf