**BioEnt Agricultural Consulting**  Gary Manley 269-273-7070 or 269-816-1080  
**CORN INSECT AND DISEASE REPORT**

**Grower**  MSY  
**Date**  9/25/2014  
**Field(s)**  TIR4  
**Crop Stage**  Early  
**Plant Height**  
**Soil Moisture 0-12"**  good  
**12-24"**  good  
**24+**  good  
**%AWC**  
**VT Leaves**  
**Silk**  
**% Pollination**  good / fair / poor  

| Uniformity_  
| General Appearance  
| Leaf Color  
| Nitrogen_  
| Deficiency_  
| Air Temperature °F  
| Cold  
| Normal  
| Hot  

**INSECT SPECIES**  
- Corn Borer  
- WBCW  
- W.C. Rootworm  
- C. Ear Worm  
- Spider Mites  
- Japanese Beetle  

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**DISEASES**  
- Anthracnose  
- NCLS - fungi  
- Leaf Blight - fungi  
- Rust  

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**Comments:**  

Grain yield estimate based on counting number of kernels per ear of corn from only one ear at corn per plot.

\[
34 \times 16 = \frac{301 \times 34 \times 16}{90} = 181.9 \text{ bu/acre}
\]
**CORN INSECT AND DISEASE REPORT**

**Grower:**

**Field(s):** T2R4

**Crop Stage:** Early Black Layer

**Soil Moisture 0-12**: Good

**Plant Height:** 12-24

**VT** Leaves % Pollination

**Vigor:** Good

**Stress:** None

**Stress-Chlorophyll:** None

**Weed Control:** Good

**Nitrogen Deficiency on lower leaves:** Yes

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**Comments:**

Grain yield estimates based on sample:

- Number of rows: 32 ft x 16 = 512 ft
- Total area: 512 ft x 16 = 8,208 sq ft
- Corn yield: 181.3 bu/acre

**Number of ears**

- Ears per row: 30 x 34 x 16 = 18,136 ears
- Total ears: 18,136 x 16 = 290,176 ears

**Black layer**

- 1 week away

-Corn growth stages
- Gary Manley 269-273-7070 or 269-816-1080
## Corn Insect and Disease Report

**Grower:** MSU  
**Date:** 9/25/2014

**Field(s):** T3R4

**Crop Stage:** Full Dent  
**Plant Height:**

**Soil Moisture 0-12":** GOOD  
**12-24":** GOOD  
**24+:** %AWC

**VT** Leaves  
**Silk**  
**% Pollination** good / fair / poor

**Vigor:**  
- Good  
- Ok  
- Poor  
- General  
- Spotty

**Stress:**  
- Heat  
- Moisture  
- Nitrogen  
- General  
- Spotty

**Stress-Chlorophyll:**  
- None  
- Low  
- High  
- General  
- Spotty

**Weed Control:**  
- Good  
- Ok  
- Poor  
- Spotty

**Grasses**  
**Broadleaves**  
**Perennials**

**Nitrogen Deficiency on lower leaves:**  
- Yes  
- No

### Insect Species and Evaluation

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### Diseases

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**Comments:**

- **Grain yield estimates based on counting number of kernels per ear of corn from only one ear of corn per plot.**

- **Plant Population:**  
  \[
  \frac{30 \times 34 \times 16}{90} = 1461.3 \text{ bu/A}
  \]

- **Kernels per row:**  
  \[
  16 \times 34 = \text{ kernels per row}
  \]
# Corn Insect and Disease Report

**Grower:** MSU  
**Date:** 9/25/2014  
**Field(s):** 4R4

**Crop Stage:** Full Dent  
**Plant Height:**  
**Soil Moisture 0-12":** OK  
**12-24":** OK  
**24+:** %AWC

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<th>Silk</th>
<th>% Pollination</th>
<th>Action</th>
<th>Good / fair / poor</th>
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**Vigor:** Good ☑ Ok ☐ Poor ☐ General ☐ Spotty

**Stress:** Heat ☐ Moisture ☐ Nitrogen ☐ General ☐ Spotty

**Stress-Chlorophyll:** None ☐ Low ☐ High ☑ General ☐ Spotty

**Weed Control:** Good ☐ Ok ☑ Poor ☐ Spotty

Grasses ☑ Broadleaves ☐ Perennials

Nitrogen Deficiency on lower leaves ☐ Yes ☑ No

**Uniformity:**  
**General Appearance:**  
**Leaf Color:**  
**Nitrogen Deficiency:**  

Air Temperature: °F  
Cold ☐ Normal ☑ Hot

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## Comments:

- **Kernels per row:**  
  - 33 x 14  
  - 37 x 16  
  - 22 x 14  

- **Grain yield estimates based on counting number of kernels per ear of corn from only one ear of corn per plot:**

- **Plant population:**  
  
  \[
  \text{plant population} = \frac{33.7 \times 30.6 \times 14.6}{90} = 112.7
  \]
BioEnt Agricultural Consulting  Gary Manley 269-273-7070 or 269-816-1080
CORN INSECT AND DISEASE REPORT

Grower: MSU  Date: 9/25/2014

Field(s): Irrigation N3 Study

Crop Stage: Early Black Layer  Plant Height

Soil Moisture 0-12": 75%  12-24": 80/85  24+: 90% AWC

VT  Leaves  Silk  % Pollination  good / fair / poor

Vigor: [ ] Good  [ ] Ok  [ ] Poor  [ ] General  [ ] Spotty

Stress: [ ] Heat  [ ] Moisture  [ ] Nitrogen  [ ] General  [ ] Spotty

Stress-Chlorophyll: [ ] None  [ ] Low  [ ] High  [ ] General  [ ] Spotty

Weed Control: [ ] Good  [ ] Ok  [ ] Poor  [ ] Spotty

[ ] Grasses  [ ] Broadleaves  [ ] Perennials

Nitrogen Deficiency on lower leaves [ ] Yes  [ ] No

Uniformity
General Appearance
Leaf Color
Nitrogen
Deficiency

Air Temperature
Cold
Normal
Hot

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Comments:
- Black layer +1-1 week away.
- Grains yield estimates based on counting number of kernels per ear of corn from only one ear of corn per plot.

38 x 16 = 37 x 34 x 16 = 252 bu/4
90
plant population

Rev 02-01-12
BioEnt Agricultural Consulting

CORN INSECT AND DISEASE REPORT

Grower: [Name]

Field(s):
- Irrigation - No Study
- Non-Irrigated Plot

Crop Stage: Early Black Layer

Plant Height:
- 0-12" 65
- 12-24" 60
- 24+ 60

Soil Moisture 0-12" %AWC

VT Leaves Silk % Pollination: good / fair / poor

Vigor:
- Good
- Ok
- Poor

Stress:
- Heat
- Moisture
- Nitrogen

Stress-Chlorophyll:
- None
- Low
- High

Weed Control:
- Good
- Ok
- Poor

Air Temperature °F

Weeds:
- Grasses
- Broadleaves
- Perennials

Nitrogen Deficiency on lower leaves: Yes / No

INSECT SPECIES LIFE STAGE EVALUATION COMMENTS

Corn Borer instar % plants affected

WBCW

W.C. Rootworm adults Beetles/plant

C. Ear Worm larvae % ears affected

Spider Mites

Japanese Beetle

DISEASES PLT/PART AFFECTED (sampled) AFFECTED (range) LESIONS square inch ear leaf EVALUATION % Plts. Aff. THRESHOLD B/N/A DIST. G/S/L

Anthracnose

NCLS - fungi

Leaf Blight - fungi

Rust

Comments:

Grain yield estimates based on counting number of kernels per ear of corn from only one ear of corn per plot.

1. 1 Week from Black Layer

\[
\frac{31 \times 36 \times 16}{90 \text{ plant population}} = 198.4 \text{ bu/A}
\]
Estimating Corn Yields Prior to Harvest

There are several techniques for estimating corn grain yield prior to harvest. This version was developed by the Ag. Engineering Department at the University of Illinois years ago and is the one most commonly used for "quick and dirty" yield estimates in the field. A numerical constant for kernel weight is figured into the equation in order to calculate grain yield. Since weight per kernel will vary depending on hybrid and environment, the yield equation should only be used to estimate relative grain yield. For example, yield will be overestimated in a year with poor grain fill conditions, while it will be underestimated in a year with good grain fill conditions.

Step 1 Count the number of harvestable ears per 1/1000th acre (see page 185).
Step 2 Count the number of kernel rows per ear on every fifth ear. Calculate the average.
Step 3 Count the number of kernels per row on each of the same ears, but do not count kernels on either the butt or tip that are less than half size. Calculate the average.
Step 4 Yield (bu./A) equals:

$$\frac{(\text{ear} \#) \times (\text{avg. row} \#) \times (\text{avg. kernel} \#)}{90}$$