

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) T1R4

Crop Stage Early Black Layer Plant Height _____
+ 30% moisture

Soil Moisture 0-12" good 12-24" good 24+ _____ %AWC

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



ACTION

None Required
 Watch
 Yes, see below

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 Frustrating
 Nitrogen _____
 Deficiency _____
 Air Temperature _____ °F Cold Normal Hot

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		% plants affected	
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:

Full Black +/- 1 wk away
 layer

Kernels per row
 number of rows

34 x 14 = $\frac{30.1 \times 34 \times 16}{90} = 181.9$ bu/A
 plant population

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

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CORN INSECT AND DISEASE REPORT

Grower MSU Date 9 25 2014

Field(s) T2R4

Crop Stage early black layer +/- 30% moisture Plant Height _____

Soil Moisture 0-12" good 12-24" good 24+ _____ %AWC

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



ACTION

None Required

Watch

Yes, see below

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 Fading

Nitrogen _____

Deficiency _____

Air Temperature _____ °F

Cold Normal Hot

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		% plants affected	
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: kernels per row 34 number of rows 16

Plant population $\frac{30 \times 34 \times 16}{90} = 181.3 \text{ bu/A}$

Black layer (full) +/- 1 week away

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

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CORN INSECT AND DISEASE REPORT

Grower MSU Date 9 25 2014

Field(s) T324



ACTION

None Required

Watch

Yes, see below

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

Uniformity _____

General Appearance _____

Leaf Color Full dent

Nitrogen _____

Deficiency _____

Air Temperature _____ °F

Cold Normal Hot

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		% plants affected	
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
Anthrachnose						
NCLS - fungi						
Leaf Blight - fungi						
Rust						

Comments: - number of rows

16 X 34 - kernels per row

Plant Population → $\frac{30 \times 34 \times 16}{90} = 141.3 \text{ bu/A}$

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

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CORN INSECT AND DISEASE REPORT

Grower MSU Date 9 25 2014
 Field(s) T4R4



ACTION

None Required
 Watch
 Yes, see below

Crop Stage Full Dent Plant Height ✓
 Soil Moisture 0-12" OK 12-24" OK 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

Uniformity _____
 General Appearance _____
 Leaf Color _____
 Nitrogen _____ Full Dent finishing
 Deficiency _____
 Air Temperature _____ °F Cold
Normal
Hot

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		% plants affected	
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					OK	
Rust						

Comments: kernels per row
 ————— number of rows

33 x 14
 37 x 16
 27 x 14

$$\frac{22.7 \times 30.6 \times 14.6}{90} = 112.7$$
 plant population

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

BioEnt – Early Season Survey Gary Manley 269-273-7070 or 269-816-1080

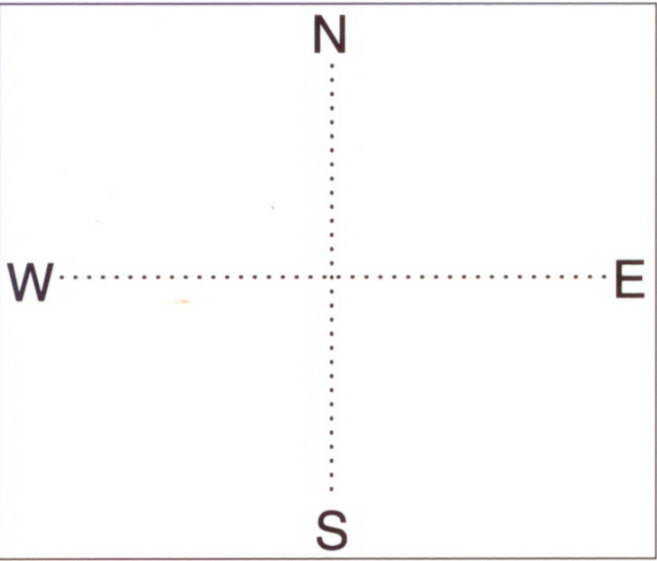
Seed Corn Corn Soybeans Wheat _____ Grower MSU Date 9/25 2014
 Field Name/Number Alfalfa T6R4 Growth Stage _____
 General Appearance OK Size 15-20" Variance OK Leaf Color OK Variance Flower
 Plant Population _____ Soil Moisture 0-12 OK 12+ OK %AWC _____

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 Dense Spots
 Grasses Broadleaves Perennials

ACTION:
 None Required
 Watch
 Yes, see comments

Comments:

- | | |
|--|--|
| <input type="checkbox"/> Annual Grasses AG | <input type="checkbox"/> Pigweed RRP |
| <input type="checkbox"/> Foxtail F | <input type="checkbox"/> Horsenettle HN |
| <input type="checkbox"/> Panicum -Fall FP | <input type="checkbox"/> Bindweed -Field FBW |
| <input type="checkbox"/> Quack grass QG | <input type="checkbox"/> Bindweed -Hedge HBW |
| <input type="checkbox"/> Wirestem Muhly WM | <input type="checkbox"/> Smartweed -Penn. PSM |
| <input type="checkbox"/> Field Sandbur FS | <input type="checkbox"/> Smart -Swamp SSM |
| <input type="checkbox"/> Crabgrass CG | <input type="checkbox"/> Dogbane -Hemp HDB |
| <input type="checkbox"/> Johnsongrass JG | <input type="checkbox"/> Lambsquarter LQU |
| <input type="checkbox"/> Shattercane SCA | <input type="checkbox"/> Ragweed CRAG |
| <input type="checkbox"/> Nutsedge NS | <input type="checkbox"/> Ragweed -Giant GRAG |
| <input type="checkbox"/> Winter Annuals WA | <input type="checkbox"/> Dock -Curly CD |
| <input type="checkbox"/> Chickweed CW | <input type="checkbox"/> Nightshade -Black BNS |
| <input type="checkbox"/> Biannuals WB | <input type="checkbox"/> Jimsonweed JW |
| <input type="checkbox"/> Cover Crop CC | <input type="checkbox"/> Canada Thistle CTH |
| <input type="checkbox"/> Velvetleaf VL | <input type="checkbox"/> Yellow Rocket YR |
| <input type="checkbox"/> Cocklebur CBUR | <input type="checkbox"/> Perennials P |
| <input type="checkbox"/> Milkweed CM | <input type="checkbox"/> Pokeweed PW |



- Germination No 1/4" Root Spike PE
 Emergence Breaking VC / V1
 Nutrient Deficiency Spots General _____
 Soil Compaction: Soil Surface:
 Spots General Hard Crusted
 Standing Water Small Spots Large Spots
 Herbicide damage Emergence stress
 Physiological Disorder in Corn Yellowish whorl
 Buggywip Stalk bending Twisted whorl
 Doubles _____ %
 Density _____ Variance _____
 Growth _____ Variance _____
 Plant spacing _____ Variance _____
 Emergence _____ Variance _____
 Soil Temperature _____ 2"

- | | | |
|---------------------------------------|---------------------------------------|---|
| <input type="checkbox"/> Cutworms | <input type="checkbox"/> White Grubs | <input type="checkbox"/> Seed Corn Maggots |
| <input type="checkbox"/> Armyworms | <input type="checkbox"/> Flea Beetles | <input type="checkbox"/> Foliar Disease-Rust |
| <input type="checkbox"/> Stalkborers | <input type="checkbox"/> Aphids | <input type="checkbox"/> Foliar Disease-Fungi |
| <input type="checkbox"/> Wireworms | <input type="checkbox"/> Slugs | <input type="checkbox"/> Corn Borer-% _____ |
| <input type="checkbox"/> Spider mites | <input type="checkbox"/> Leafhoppers | <input type="checkbox"/> Stunted plants |

- | | |
|--------------------------------------|------------------------------------|
| <input type="checkbox"/> Root Damage | <input type="checkbox"/> Plants |
| <input type="checkbox"/> Insects | <input type="checkbox"/> Purplish |
| <input type="checkbox"/> Diseases | <input type="checkbox"/> Yellowish |
| <input type="checkbox"/> Nematodes | <input type="checkbox"/> Stunting |

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CORN INSECT AND DISEASE REPORT

Grower MSU Date 9/25/2014

Field(s) Irrigation N₂ Study
Irrigated Plot

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



ACTION

None Required
 Watch
 Yes, see below

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

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		% plants affected	
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:
 kernels per row
 Black layer +1 - 1 week away
 - number of rows
 $38 \times 14 =$
 $\frac{37.3 \times 34 \times 16}{90} = 252 \text{ bu/A}$
 plant population
 Grain yield estimates based on counting number of kernels per ear of corn from only one ear of corn per plot.

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) Non-irrigation - N₂ study
non-irrigated plot

Crop Stage early Black layer Plant Height _____

Soil Moisture 0-12" 65 12-24" 60 24+ 60 %AWC

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



ACTION

None Required

Watch

Yes, see below

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 finishing

Nitrogen _____

Deficiency _____

Air Temperature _____ °F

Cold Normal Hot

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		% plants affected	
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
Anthraxnose						
NCLS - fungi						
Leaf Blight - fungi						
Rust						

Comments:

Kernels per row 36 x 16 =

1/2 1 week from Black layer

$\frac{31 \times 36 \times 16}{90} = 198.4 \text{ bu/A}$

plant population

number of rows

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

\$5.00

ID 179



**Purdue Crop
Diagnostic
Training and
Research Center**

Corn & Soybean Field Guide

2004 Edition



**Integrated Pest
Management**
Purdue University

Purdue University Cooperative Extension Service

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:

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