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

<table>
<thead>
<tr>
<th>Field Name/Number</th>
<th>General Appearance</th>
<th>Size</th>
<th>Variance</th>
<th>Leaf Color</th>
<th>Variance</th>
<th>Plant Population</th>
<th>Soil Moisture 0-12</th>
<th>Soil Moisture 12+</th>
<th>%AWC</th>
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<tbody>
<tr>
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**Vigor:**  
- Good
- OK
- Poor

**Stress:**  
- Heat
- Moisture
- Nitrogen

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

**Weed Control:**  
- Good
- OK
- Poor
- Spotty
- Dense Spots

- Grasses
- Broadleaves
- Perennials

**ACTION:**  
- None Required
- Watch
- Yes, see comments

**Comments:**  
Sprayed.  
Weeds showing die back.  
No insect.  
Disease.  
OK

- Annual Grasses AG
- Foxtail F
- Panicum -Fall FP
- Quack grass QG
- Wirestem Muhly WM
- Field Sandbur FS
- Crabgrass CG
- Johnsongrass JG
- Shartecane SCA
- Nutsedge NS
- Winter Annuals WA
- Chickweed CW
- Biannuals WB
- Cover Crop CC
- Velvetleaf VL
- Cocklebur CBUR
- Milkweed CM

- Pigweed RRP
- Horsenettle HN
- Bindweed -Field FBW
- Bindweed -Hedge HBW
- Smartweed -Penn. PSM
- Smart -Swamp SSM
- Dogbane -Hemp HDB
- Lambsquarter LQU
- Ragweed CRAG
- Ragweed -Giant GRAG
- Dock -Curly CD
- Nightshade -Black BNS
- Jimsonweed JW
- Canada Thistle CTH
- Yellow Rocket YR
- Perennials P
- Pokeweed PW

- Germination
- No
- 1/4" Root
- Spike PE

- Emergence
- Breaking
- VC / V1

- Nutrient Deficiency
- Spots
- General

- Soil Compaction:
  - Spots
  - General
  - Hard
  - Crusted

- Standing Water
- Small Spots
- Large Spots

- Herbicide damage
- Emergence stress

- Physiological Disorder in Corn
  - Yellowish whorl
  - Buggwyn
  - Stalk bending
  - Twisted whorl

- Doubles %

- Density
- Variance

- Growth
- Variance

- Plant spacing
- Variance

- Emergence
- Variance

- Soil Temperature 2°

- Root Damage
- Insects
- Plants

- Diseases
- Yellowish

- Nematodes
- Stunting
BioEnt – Early Season Survey

Seed Corn ☐ Corn ☐ Soybeans ☐ Wheat ☐ Grower MSU Date 5-2-2013
Field Name/Number ☐ 12 R1 Growth Stage ☐
General Appearance OK Size OK Variance OK Leaf Color OK Variance OK
Plant Population OK Soil Moisture 0-12 OK 12+ OK %AWC

Vigor: ☐ Good ☐ OK ☐ Poor ☐ Spotty Stress: ☐ 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:

Annual Grasses AG
Foil F
Panicum-Fall FP
Quack grass QQ
Wiresmth Muhly WM
Field Sandbur FS
Crabgrass CG
Johnsongrass JG
Shalterance SCA
Nutsedge NUS
Winter Annuals WA
Chickweed CW
Biennials WB
Cover Crop CC
Velvetleaf VL
Cocklebur CBUR
Milkweed CM

Pigweed RRP
Horsenettle HN
Bindweed -Field FBW
Bindweed -Hedge HBW
Smartweed -Penn. PSM
Smart -Swamp SSM
Dogbane -Hemp HDB
Lambsquarter LQU
Ragweed CRAG
Ragweed -Giant GRAG
Dock -Curly CD
Nightshade -Black BNS
Jimsonweed JW
Canada Thistle CTH
Yellow Rocket YR
Perennials P
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°

Cutworms ☐ White Grubs ☐ Seed Corn Maggots
Armyworms ☐ Flea Beetles ☐ Foliar Disease-Rust
Stalkborers ☐ Aphids ☐ Foliar Disease-Fungi
Wireworms ☐ Slugs ☐ Corn Borer-%
Spider mites ☐ Leafhoppers ☐ Stunted plants

Root Damage ☐ Insects ☐ Plants
☐ Diseases ☐ Purplish
☐ Nematodes ☐ Yellowish
☐ Stunting
BioEnt – Early Season Survey

Grower: M. L. Date: 5/2/2013
Field Name/Number: T3
General Appearance: Ok
Size: 6"
Variance: Ok
Leaf Color: Ok
Shoot Color: 0-12
Soil Moisture: 0-12

Vigor: Good
Stress: Heat
Stress-Chlorophyll: None
Weed Control: Good

ACTION:
None Required
Watch
Yes, see comments

Comments:
Sprayed 5-1-2013 Herbs
No Insects
No Disease
Growth/Color

N
W
S
E

Cutworms
Armyworms
Stalkborers
Wireworms
Spider mites
White Grubs
Flea Beetles
Aphids
Slugs
Leafhoppers
Seed Corn Maggots
Foliar Disease-Rust
Foliar Disease-Fungi
Corn Borer-%

Root Damage
Insects: Ok
Diseases: Ok
Nematodes: Ok

Plants
Purplish
Yellowish
Stunted
BioEnt - Early Season Survey

Grower: MSU
Date: 5/12/2013

Field Name/Number: Y4 R1
Growth Stage

General Appearance: OK
Size: 4
Variance: OK
Leaf Color: OK
Variance: OK

Plant Population: OK
Soil Moisture: 0-12 OK
12+ %AWC

Vigor: X Good
Stress: X Heat
Stress-Chlorophyll: None
Weed Control: OK

ACTION:
X None Required
Watch
Yes, see comments

Comments:
No Insects
No Disease
Growth/Vigor normal
Color normal

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

Germination
Emergence
Nutrient Deficiency
Emergence stress
Soil Compaction:
Spots
General
Soil Surface:
Hard
Crusted
Standing Water
Small Spots
Large Spots
Herbicide damage
Phphysiological Disorder in Corn
Yellowish whorl
Buggywip
Stalk bending
Twisted whorl
Doubles
Density
Growth
Plant spacing
Emergence
Soil Temperature

Cutworms
White Grubs
Seed Corn Maggots
Foliar Disease-Rust
Foliar Disease-Fungi
Corn Borer-%
Stunted plants

Root Damage
Insects
Diseases
Nematodes

Plants
Purplish
Yellowish
Stunting
**BioEnt – Early Season Survey**

**Grower:** A. Fulva  
**Date:** 5/2/2013

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**Vigor:**  
-☑️ Good  
-☑️ OK  
- X 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:**  
- ☑️ No aphids  
- ☑️ Few scattered minor (low level) bugs

---

**PLANS & TRAITS:**

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

**PLANS & TRAITS:**

- ☑️ Emergence  
- ☑️ Breaking  
- ☑️ VC/V1  
- ☑️ Nutrient Deficiency  
- ☑️ Spots  
- ☑️ General  

**PLANS & TRAITS:**

- ☑️ Soil Compaction:  
  - ☑️ Spots  
  - ☑️ General
- ☑️ Soil Surface:  
  - ☑️ Hard  
  - ☑️ Crusted

**PLANS & TRAITS:**

- ☑️ Standing Water  
- ☑️ Small Spots  
- ☑️ Large Spots

**PLANS & TRAITS:**

- ☑️ Herbicide damage  
- ☑️ Emergence stress

**PLANS & TRAITS:**

- ☑️ Physiological Disorder in Corn  
  - ☑️ Yellowish whorl
- ☑️ Buggywip  
- ☑️ Stalk bending  
- ☑️ Twisted whorl

**PLANS & TRAITS:**

- ☑️ Doubles  
- ☑️ Density
- ☑️ Variance

**PLANS & TRAITS:**

- ☑️ Growth  
- ☑️ Variance

**PLANS & TRAITS:**

- ☑️ Plant spacing  
- ☑️ Variance

**PLANS & TRAITS:**

- ☑️ Emergence  
- ☑️ Variance

**PLANS & TRAITS:**

- ☑️ Soil Temperature  
- ☑️ 2°

**PLANS & TRAITS:**

- ☑️ Cutworms  
- ☑️ White Grubs  
- ☑️ Seed Corn Maggots

**PLANS & TRAITS:**

- ☑️ Armyworms  
- ☑️ Flea Beetles  
- ☑️ Foliar Disease-Rust

**PLANS & TRAITS:**

- ☑️ Stalkborers  
- ☑️ Aphids  
- ☑️ Foliar Disease-Fungi

**PLANS & TRAITS:**

- ☑️ Wireworms  
- ☑️ Slugs  
- ☑️ Corn Borer-%

**PLANS & TRAITS:**

- ☑️ Spider mites  
- ☑️ Leafhoppers  
- ☑️ Stunted plants

**PLANS & TRAITS:**

- ☑️ Root Damage  
- ☑️ Insects

**PLANS & TRAITS:**

- ☑️ Diseases  
- ☑️ Yellowish

**PLANS & TRAITS:**

- ☑️ Nematodes  
- ☑️ Stunting
**BioEnt – Early Season Survey**

**Grower:** M. G.  
**Date:** 5/2/2013

**Field Name/Number:** N Rate Irrigated

**General Appearance:** OK  
**Size:** OK  
**Variance:** OK  
**Leaf Color:** OK  
**Variance:** OK

**Plant Population:**  
**Soil Moisture:** 0-12 OK  
12+ OK %AWC

**Vigor:** Good  
**Moisture:** General  
**Nitrogen:** General  
**Spotti:**

**Stress:** Heat  
**Moisture:** General  
**Nitrogen:** General  
**Spotti:**

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

**Weed Control:** Good  
**POOR:** Spotty  
**Spotti:** Dense Spots  
**Grasses:**

**Broadleaves:**

**Perennials:**

---

**Comments:**

- Sprayed

---

**ACTION:**  
- None Required
- Watch
- Yes, see comments

---

**Germination**  
**No**  
1/4" Root  
Spike PE

**Emergence**  
**Breaking**  
VC/V1

**Nutrient Deficiency**  
**Spots**  
**General**

**Soil Compaction:**  
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°

---

**Cutworms**

**Armyworms**

**Stalkborers**

**Wireworms**

**Spider mites**

**White Grubs**

**Flea Beetles**

**Seed Corn Maggots**

**Foliar Disease-Rust**

**Foliar Disease-Fungi**

**Corn Borer-%**

**Stunted plants**

---

**Root Damage**

**Plants**

**Insects**

**Diseases**

**Yellowish**

**Nematodes**

**Stunting**
BioEnt – Early Season Survey

Field Name/Number: N Rate: Dryland
Growth Stage: 4

General Appearance: OK Size: OK Variance: OK Leaf Color: OK Variance: OK

Plant Population: OK Soil Moisture 0-12: OK 12+: OK %AWC

Vigor: Good
Stress: Heat
Stress-Chlorophyll: None
Weed Control: Good

ACTION:
- None Required
- Watch
- Yes, see comments

Comments:
- Sprayed die back normal OK

Map:
- Annual Grasses AG
- Foxtail F
- Panicum -Fall FP
- Quackgrass QG
- Wirestem Muhly WM
- Field Sandbur FS
- Crabgrass CG
- Johnsongrass JG
- Shattercane SCA
- Nutsedge NS
- Winter Annuals WA
- Chickweed CW
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- Cover Crop CC
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- Dock -Curly CD
- Nightshade -Black BNS
- Jimsonweed JW
- Canada Thistle CTH
- Yellow Rocket YR
- Perennials P
- Pokeweed PW

Germination: No
Emergence: 1/4" Root:
Nutrient Deficiency: Breaking
Soil Compaction:
Spots: General
Standing Water: Small Spots
Large Spots:
Herbicide damage:
Emergence stress:
Physiological Disorder in Corn:
Yellowish whorl:
Buggywip:
Stalk bending:
Twisted whorl:
Doubles:
Density:
Growth:
Plant spacing:
Emergence:
Soil Temperature:

Cutworms
Armyworms
Stalk borers
Wireworms
Spider mites
White Grubs
Flea Beetles
Aphids
Slugs
Leafhoppers
Seed Corn Maggots
Foliar Disease-Rust
Foliar Disease-Fungi
Corn Borer-%
Stunted plants

Root Damage:
- Insects
- Diseases
- Yellowish
- Nematodes
- Stunting