## BioEnt – Early Season Survey

**Gary Manley 269-273-7070 or 269-816-1080**

- **Field Name/Number:** TIR1
- **Grower:** 271
- **Growth Stage:** 7
- **Date:** 5/8/2019
- **General Appearance:**
  - Size: 12-14" variance OK
  - Leaf Color: 90% variance 7%
- **Plant Population:**
  - Soil Moisture 0-12: good
  - 12-24: good
  - 24+: %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

### Comments:

```
Looks good/old-growth normal.
```

### Action:
- None Required
- Watch
- Yes, see comments

### Weeds:
- Annual Grasses AG
- Foxtail F
- Panicum - Fall FP
- Quack grass QG
- Wirestem Muhly WM
- Marestail MT
- 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
- 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

### Diseases:
- None
- 1/4" Root
- Spike PE
- No
- 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: 90%
- Growth: 90%
- Plant spacing
- Emergence
- Soil Temperature: 2"
### BioEnt – Early Season Survey

**Gary Manley 269-273-7070 or 269-816-1080**

<table>
<thead>
<tr>
<th>Field Name/Number</th>
<th>Grower</th>
<th>Growth Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>T281</td>
<td>WSH</td>
<td>7</td>
</tr>
</tbody>
</table>

**Comments:**

Plot Uniform

- Looks good/good color

---

**Date:** 5/11/2019

- **Seed Corn**
- **Maize**
- **DQO**
- **Soybeans**
- **Wheat**
- **Green Beans**

**General Appearance:**

- Size: 4
- Variance: ok
- Leaf Color: good
- Variance: good

**Plant Population:**

- Soil Moisture: 0-12: 80+ 12-24: 80+ 24+: %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:**

- Plot Uniform
- Looks good/good color

---

**Weeds:**

- Annual Grasses AG
- Foxtail F
- Panicum-Fall FP
- Quack grass QG
- Wirestem Muhly WM
- Marestail MT
- Crabgrass CG
- Johnsongrass JG
- Shattuck SCA
- Nutsedge NS
- 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
- Lambquar LQU
- Ragweed CRAG
- Ragweed -Giant GRAG
- Dock -Curly CD
- Nightshade -Black BNS
- Jimsonweed JW
- Canada Thistle CTH
- Yellow Rocket YR
- Perennials P
- Pokeweed PW
- Annual Grasses AG
- Foxtail F
- Panicum-Fall FP
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- 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

**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
- Growth

**Root Damage:**

- Insects
- Plants
- Purplish
- Diseases
- Yellowish
- Nematodes
- Stunting

---

**Stunting:**

- Plants
- Purplish
- Diseases
- Yellowish
- Nematodes
- Stunting
### BioEnt – Early Season Survey

**Date:** 5/1/2019

<table>
<thead>
<tr>
<th>Field Name/Number</th>
<th>13R1</th>
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<table>
<thead>
<tr>
<th>Grower</th>
<th></th>
<th>Growth Stage</th>
</tr>
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<tr>
<td></td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>General Appearance</th>
<th>Good</th>
<th>Size</th>
<th>10-14&quot;</th>
<th>Variance</th>
<th>Leaf Color</th>
<th>Good</th>
<th>Variance</th>
<th>40%</th>
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</table>

<table>
<thead>
<tr>
<th>Plant Population</th>
<th>OK</th>
<th>Soil Moisture</th>
<th>0-12</th>
<th>12-24</th>
<th>OK</th>
<th>24+</th>
<th>%AWC</th>
</tr>
</thead>
</table>

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

### Comments:
- Plot looks uniform
- Color/growth good.

---

<table>
<thead>
<tr>
<th>Vigor</th>
<th>Good</th>
<th>OK</th>
<th>Poor</th>
<th>General</th>
<th>Spotty</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Stress</th>
<th>Heat</th>
<th>Moisture</th>
<th>Nitrogen</th>
<th>General</th>
<th>Spotty</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Stress-Chlorophyll</th>
<th>None</th>
<th>Low</th>
<th>High</th>
<th>General</th>
<th>Spotty</th>
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</table>

<table>
<thead>
<tr>
<th>Weed Control</th>
<th>Good</th>
<th>OK</th>
<th>Poor</th>
<th>Spotty</th>
<th>Dense Spots</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Grasses</td>
<td>Broadleaves</td>
<td>Perennials</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Problems:
- Cutworms CW
- Armyworms AW
- Stalkborers SB
- Wireworms WW
- Spider Mites SM
- White Grubs WG
- Seed Corn Maggots
- Foliar Disease-Rust
- Foliar Disease-Fungi
- Corn Borer-%
- Stunted plants

### Observations:
- Annual Grasses AG
- Foxtail F
- Panicum -Fall FP
- Quack grass QG
- Wiresem Muhly WM
- Mareastail MT
- Crabgrass CG
- Johnsongrass JG
- Shatercane SCA
- Nutsedge NS
- Winter Annuals WA
- Chickweed CW
- Biannuals WB
- Cover Crop CC
- Velvetleaf VL
- Cocklebur CBUR
- Milkweed CM

### Comments:
- Plot looks uniform
- Color/growth good.

---

<table>
<thead>
<tr>
<th>Germination</th>
<th>No</th>
<th>1/4&quot; Root</th>
<th>Spike PE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergence</td>
<td>Breaking</td>
<td>VC / V1</td>
<td></td>
</tr>
<tr>
<td>Nutrient Deficiency</td>
<td>Spots</td>
<td>General</td>
<td></td>
</tr>
<tr>
<td>Soil Compaction</td>
<td>Soil Surface :</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standing Water</td>
<td>Small Spots</td>
<td>Large Spots</td>
<td></td>
</tr>
<tr>
<td>Herbicide damage</td>
<td>Emergence stress</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physiological Disorder in Corn</td>
<td>Yellowish whorl</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buggywip</td>
<td>Stalk bending</td>
<td>Twisted whorl</td>
<td></td>
</tr>
<tr>
<td>Doubles</td>
<td>%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>Variance</td>
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<tr>
<td>Growth</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Plant spacing</td>
<td>Variance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergence</td>
<td>Variance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soil Temperature</td>
<td>2&quot;</td>
<td></td>
<td></td>
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</tbody>
</table>

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

### Observations:
- Root Damage
- Insects
- Purplish
- Diseases
- Yellowish
- Nematodes
- Stunting

---

<table>
<thead>
<tr>
<th>Annual Grasses AG</th>
<th>Pigweed RRP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foxtail F</td>
<td>Horsenettle HN</td>
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<tr>
<td>Panicum -Fall FP</td>
<td>Bindweed -Field FBW</td>
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<tr>
<td>Quack grass QG</td>
<td>Bindweed -Hedge HBW</td>
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<tr>
<td>Cover Crop CC</td>
<td>Canada Thistle CTH</td>
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<tr>
<td>Velvetleaf VL</td>
<td>Yellow Rocket YR</td>
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<tr>
<td>Cocklebur CBUR</td>
<td>Perennials P</td>
</tr>
<tr>
<td>Milkweed CM</td>
<td>Pokeweed PW</td>
</tr>
</tbody>
</table>

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**BioEnt – Early Season Survey**

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

**Date**: 5/18/2017

**Field Name/Number**: TYR 2

**Grower**: MGY

**Growth Stage**: 6

### General Appearance
- **Color**: Poor
- **Size**: 6
- **Variance**: OK

### Plant Population
- **Vigor**: Poor
- **Stress**: Heat
- **Chlorophyll**: None
- **Leaf Color**: Yellow

### Soil Compaction
- **Soil Surface**: Crusted
- **Spots**: General
- **Stress**: Nitrogen

### Weed Control
- **Vigor**: Poor
- **Grass**: Spotty

### ACTION:
- **None Required
- **Watch**

---

### Comments:
- **Annual Grasses**: AG
- **Foxtail**: F
- **Panicum - Fall**: FP
- **Quack grass**: QG
- **Wirestem Muhly**: WM
- **Marestail**: MT
- **Crabgrass**: CG
- **Johnsongrass**: JG
- **Shattercane**: SCA
- **Nutsedge**: NS
- **Winter Annuals**: WA
- **Chickweed**: CW
- **Biennials**: WB
- **Cover Crop**: CC
- **Velvetleaf**: VL
- **Cocklebur**: CBUR
- **Milkweed**: CM
- **Cover Crop emerging**: On 1

---

### N
- **Germination**: No
- **Emergence**: 1/4
- **Nutrient Deficiency**: Spike PE
- **Soil Compaction**: OK
- **Spots**: General
- **Stress**: Heat
- **Physiological Disorder in Corn**: None
- **Doubles**: OK
- **Optimum Variance**: OK
- **Soil Temperature**: 2

### S
- **White Grubs**: WG
- **Seed Corn Maggots**: S

### W
- **Cutworms**: CW
- **Armyworms**: AW
- **Stalkborers**: SB
- **Wireworms**: WW
- **Spider Mites**: SM

---

### E
- **Root Damage**: Insects
- **Plants**: Purplish
- **Diseases**: Yellowish
- **Nematodes**: Stunting
<table>
<thead>
<tr>
<th>Vigor:</th>
<th>Good</th>
<th>OK</th>
<th>Poor</th>
<th>General</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Stress:</td>
<td>Heat</td>
<td>Moisture</td>
<td>Nitrogen</td>
<td>General</td>
<td>Spotty</td>
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<td></td>
</tr>
</tbody>
</table>

**Comments:**

*Switch grass not planted, apply burn down prior to planting.*

<table>
<thead>
<tr>
<th>Field Name/Number</th>
<th>Grower</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDR</td>
<td></td>
</tr>
</tbody>
</table>

**Action:**

- None Required
- Watch
- Yes, see comments

### Crop and Disease Issues
- Switchgrass
- Cutworms CW
- White Grubs WG
- Seed Corn Maggots
- Root Damage
- Insects
- Root Rot
- Purple
- Diseases
- Yellowish
- Nematodes
- Stunting

### General Observations
- None Required
- Watch
- Yes, see comments

### Environment
- Soil Moisture 0-12
- 12-24
- 24+ %AWC
- 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

### Comments

*Switch grass not planted, apply burn down prior to planting.*
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<td>Stress:</td>
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<td>Nitrogen</td>
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<td>OK</td>
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<td>Spotty</td>
<td>Dense Spots</td>
</tr>
</tbody>
</table>

### Comments:

- Variance in leaf color and growth due to treatments.
- Form done for higher N rates.
- Lower N uptake showing yellowish leaf color.

### ACTION:

- None Required
- Watch
- Yes, see comments

### Field Name/Number

<table>
<thead>
<tr>
<th>Size</th>
<th>Variety</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Plant Population</th>
<th>Soil Moisture 0-12</th>
<th>12-24</th>
<th>24+</th>
<th>%AWC</th>
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</thead>
</table>

<table>
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<tr>
<th>Vigor</th>
<th>Stress</th>
<th>Stress-Chlorophyll</th>
<th>Weed Control</th>
<th>Comments</th>
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<tbody>
<tr>
<td>Good</td>
<td>Heat</td>
<td>General</td>
<td>Grasses</td>
<td>Variance in leaf color &amp; growth due to treatments.</td>
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<tr>
<td>OK</td>
<td>Moisture</td>
<td>Low</td>
<td>Broadleaves</td>
<td>Form done for higher N rates.</td>
</tr>
<tr>
<td>Poor</td>
<td>Nitrogen</td>
<td>High</td>
<td>Perennials</td>
<td>Lower N uptake showing yellowish leaf color.</td>
</tr>
</tbody>
</table>

### Plant Population

- Annual Grasses AG
- Foxtail F
- Panicum -Fall FP
- Quack grass QG
- Wirestem Muhly WM
- Marestail MT
- Crabgrass CG
- Johnsongrass JG
- Shaterecane SCA
- Nutsedge NS
- Winter Annuals WA
- Chickweed CW
- Biennials WB
- Cover Crop CC
- Velveteat VL
- Cocksbeard CBUR
- Milkweed CM
- Pigweed RRP
- Horsenettle HN
- Bindweed -Field FBW
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- Dogbane -Hemp HDB
- Lamb'squarter LQU
- Ragweed CRAG
- Ragweed -Giant GRAG
- Dock -Curly CD
- Nightshade -Black BNS
- Jimsonweed JW
- Canada Thistle CTH
- Jollyrocket YR
- Perennials P
- Pokeweed PW

### Soil Moisture

<table>
<thead>
<tr>
<th>Size</th>
<th>Variety</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Plant Population</th>
<th>Soil Moisture 0-12</th>
<th>12-24</th>
<th>24+</th>
<th>%AWC</th>
</tr>
</thead>
</table>

### Soil Compaction

- Spots | General | Spots | General | Spots | General |

### Nutrient Deficiency

- Spots | General |

### Emergence

- No | 1/4" Root | Spike PE | VC/V1 |

### Soil Temperature

- 2" |
**BioEnt – Early Season Survey**

**Field Name/Number**

**General Appearance**

**Plant Population**

**Soil Moisture**

**Leaf Color**

**Stress-Chlorophyll**

**Weed Control**

**Vigor**

**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

<table>
<thead>
<tr>
<th>Action</th>
<th>None Required</th>
<th>Watch</th>
<th>Yes, see comments</th>
</tr>
</thead>
</table>

**Comments:**

- Variance in leaf color & growth due to treatments.
- Form done in higher N-rates.

**N**

- Lower W rates showing yellowish leaf color.

**ACTION:**

- None Required
- Watch
- Yes, see comments

**Comments:**

- Variance in leaf color & growth due to treatments.
- Form done in higher N-rates.

**W**

- Lower W rates showing yellowish leaf color.

**E**

- Lower W rates showing yellowish leaf color.

**S**

- Lower W rates showing yellowish leaf color.

**Root Damage**

- None Required
- Watch
- Yes, see comments

**Insects**

- None Required
- Watch
- Yes, see comments

**Diseases**

- None Required
- Watch
- Yes, see comments

**Yellowish**

- None Required
- Watch
- Yes, see comments

**Nematodes**

- None Required
- Watch
- Yes, see comments

**Stunting**

- None Required
- Watch
- Yes, see comments