

BioEnt - Early Season Survey

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

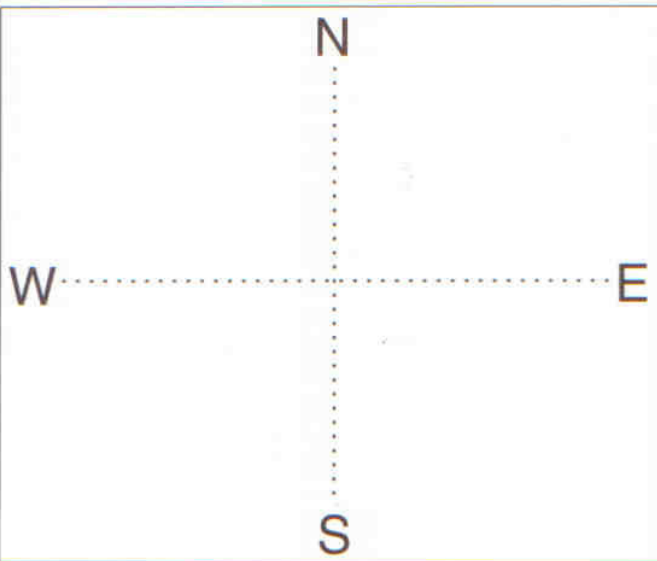
Seed Corn Corn Soybeans Wheat Wheat Grower MSU Date 7/25/2013
 Field Name/Number TIRI Growth Stage _____
 General Appearance _____ Size _____ Variance _____ Leaf Color _____ Variance _____
 Plant Population _____ Soil Moisture 0-12 _____ 12+ _____ %AWC _____

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 *Control Weeds*
 Watch
 Yes, see comments

Comments:
Harvested
 AG - general/moderate to dense spots
 UL - scattered plants
 CRAB - few spots

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 Lambsquarter LQU
 Shattercane SCA Ragweed CRAG
 Nutsedge NS Ragweed -Giant GRAG
 Winter Annuals WA Dock -Curly CD
 Chickweed CW Nightshade -Black BNS
 Biannuals WB Jimsonweed JW
 Cover Crop CC Canada Thistle CTH
 Velvetleaf VL Yellow Rocket YR
 Cocklebur CBUR Perennials P
 Milkweed CM 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 Plants
 Insects Purplish
 Diseases Yellowish
 Nematodes Stunting

BioEnt - Early Season Survey

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

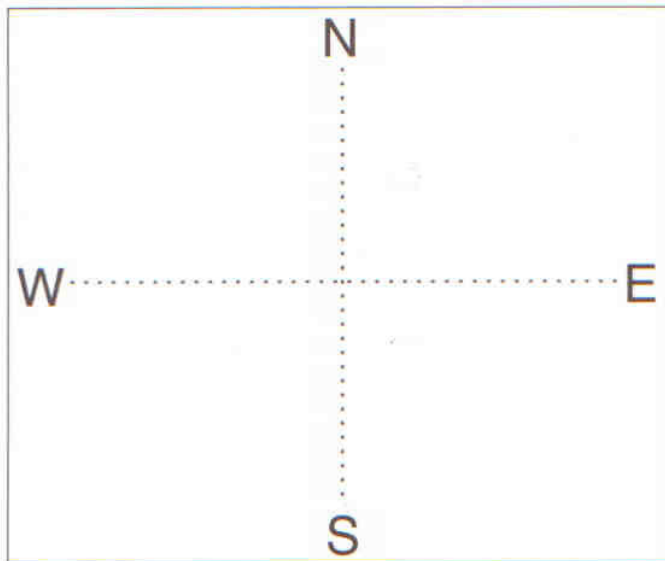
Seed Corn Corn Soybeans Wheat _____
 Field Name/Number T2R1 Growth Stage _____
 General Appearance _____ Size _____ Variance _____ Leaf Color _____ Variance _____
 Plant Population _____ Soil Moisture 0-12 _____ 12+ _____ %AWC _____

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
Control passes

Comments:
Harvested
AG - general spotty - moderate
CRA@ - Scattered
VL - few plants

- 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
- 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: 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 Plants
 Insects Purplish
 Diseases Yellowish
 Nematodes Stunting

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

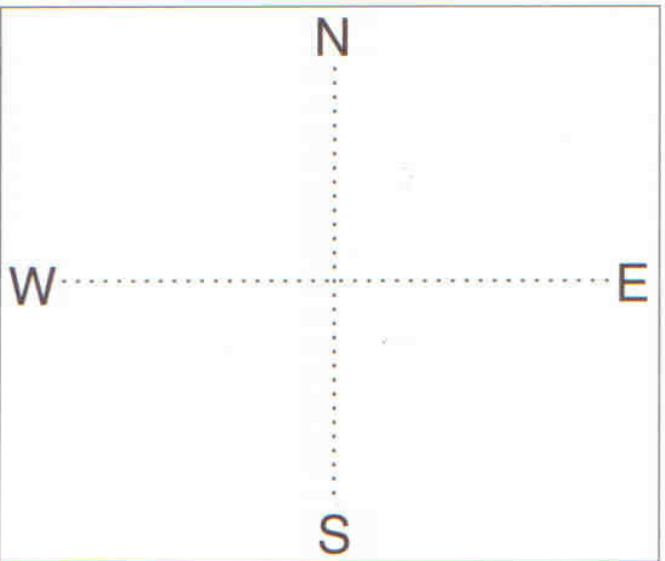
Seed Corn Corn Soybeans Wheat _____ Grower MSU Date 9/25/2013
 Field Name/Number T3R1 Growth Stage _____
 General Appearance _____ Size _____ Variance _____ Leaf Color _____ Variance _____
 Plant Population _____ Soil Moisture 0-12 _____ 12+ _____ %AWC _____

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 *Control*
 Watch
 Yes, see comments *Woods*

Comments:
Harvested
AG - general/dense spots
C RAG - scattered throughout common/dense spots

- | | |
|---|--|
| <input checked="" 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 checked="" 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 |

BioEnt - Early Season Survey

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

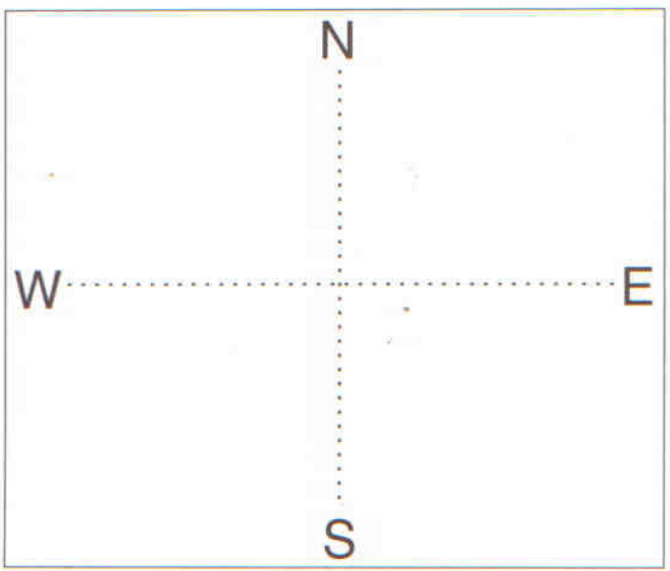
Seed Corn Corn Soybeans Wheat _____ Grower MSU Date 7/25/2013
 Field Name/Number T4R1 Growth Stage _____
 General Appearance _____ Size _____ Variance _____ Leaf Color _____ Variance _____
 Plant Population _____ Soil Moisture 0-12 _____ 12+ _____ %AWC _____

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 *control*
 Watch *WEEDS*
 Yes, see comments

Comments:
Harvested
Clover - good stand.
AG - general/common
CRAG - general/moderate
dense spots

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 Lambsquarter LQU
 Shattercane SCA Ragweed CRAG
 Nutsedge NS Ragweed -Giant GRAG
 Winter Annuals WA Dock -Curly CD
 Chickweed CW Nightshade -Black BNS
 Biannuals WB Jimsonweed JW
 Cover Crop CC Canada Thistle CTH
 Velvetleaf VL Yellow Rocket YR
 Cocklebur CBUR Perennials P
 Milkweed CM 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 Plants
 Insects Purplish
 Diseases Yellowish
 Nematodes Stunting

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

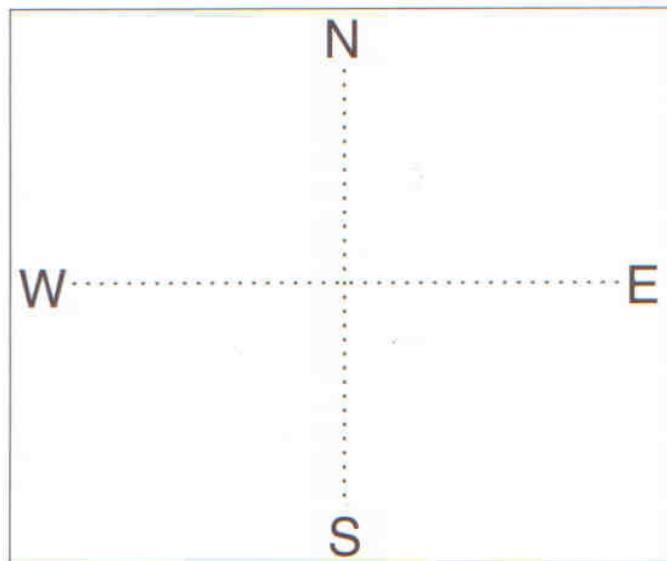
Seed Corn Corn Soybeans Wheat Alfalfa Other
 Field Name/Number T6R1 Alfalfa Growth Stage _____
 General Appearance ok Size ok Variance ok Leaf Color ok Variance ok
 Plant Population _____ Soil Moisture 0-12 good 12+ good %AWC _____

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:
 → Alfalfa hay hoppers
 0.2 / sweep
 10-12" tall regrowth
 Color/growth good

- | | |
|--|--|
| <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 ok Variance ok
 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 |

BioEnt - Early Season Survey

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

Seed Corn Corn Soybeans Wheat MSU Grower Date 7/25/2013
 Field Name/Number Irrigation N Study Growth Stage _____
 General Appearance _____ Size _____ Variance _____ Leaf Color _____ Variance _____
 Plant Population _____ Soil Moisture 0-12 _____ 12+ _____ %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

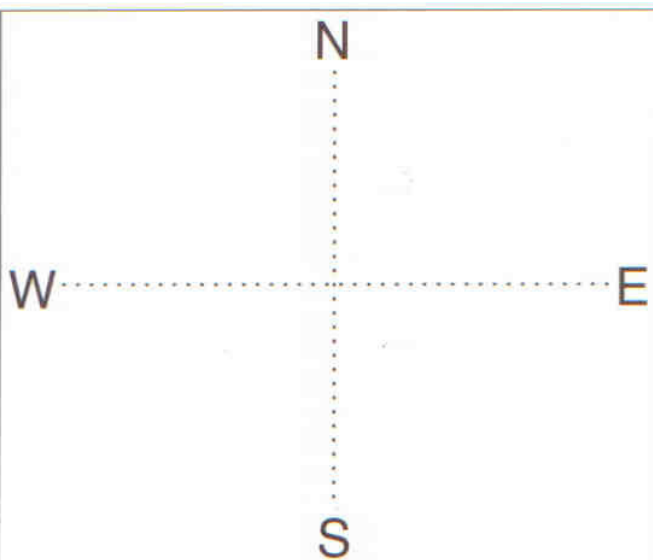
Control Weeds

Comments:

Harvested
AG - general
HN - few plants

<input checked="" type="checkbox"/> Annual Grasses AG	<input type="checkbox"/> Pigweed RRP
<input type="checkbox"/> Foxtail F	<input checked="" 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"/> Root Damage	<input type="checkbox"/> Plants
<input type="checkbox"/> Armyworms	<input type="checkbox"/> Flea Beetles	<input type="checkbox"/> Foliar Disease-Rust	<input type="checkbox"/> Insects	<input type="checkbox"/> Purplish
<input type="checkbox"/> Stalkborers	<input type="checkbox"/> Aphids	<input type="checkbox"/> Foliar Disease-Fungi	<input type="checkbox"/> Diseases	<input type="checkbox"/> Yellowish
<input type="checkbox"/> Wireworms	<input type="checkbox"/> Slugs	<input type="checkbox"/> Corn Borer-% _____	<input type="checkbox"/> Nematodes	<input type="checkbox"/> Stunting
<input type="checkbox"/> Spider mites	<input type="checkbox"/> Leafhoppers	<input type="checkbox"/> Stunted plants		

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

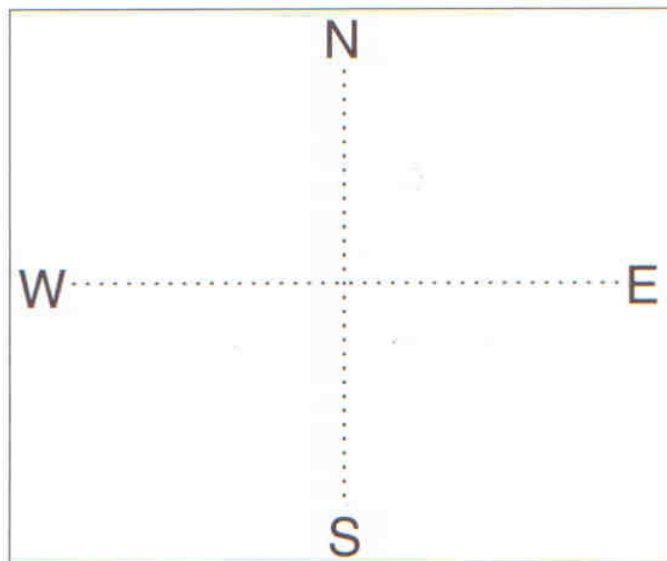
Seed Corn Corn Soybeans Wheat
 Field Name/Number Non-Irrigated - N Study Growth Stage _____
 General Appearance _____ Size _____ Variance _____ Leaf Color _____ Variance _____
 Plant Population _____ Soil Moisture 0-12 _____ 12+ _____ %AWC _____

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
Control grasses

Comments:
Harvested
AG - general/dense grass stands

- 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
- 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: 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
- Armyworms
- Stalkborers
- 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 Plants
- Insects Purplish
- Diseases Yellowish
- Nematodes Stunting