



2011 Spring Replicated Strip Trials

- Crop Protection
 - Stratego YLD Fungicide & Leverage 360 Insecticide on Soybeans
 - Stratego YLD at V5 on corn
 - AMVAC Counter 20G
 - Authority Assist Herbicide on Soybeans
 - FMC “High Intensity”
 - BASF “High Intensity”
- Manure
 - Manure Manager
 - Manure plus 50 lbs N
- Nitrogen
 - UAN with Agrotain Plus
 - Broadcast plus SD vs. Only SD
 - Normal minus 50 lbs N
 - Normal plus 50 lbs N
 - UAN vs. NH3
 - Ultimate Nitrogen
- Plant Nutrition
 - MicroEssentials (MESZ)
 - SuperCal SO4
- Population
 - Corn and Soybeans
- Seed Treatment
 - Vault HP inoculant

Crop Protection

- Fungicide
- Insecticide
- Nematicide
- Herbicide
- “High Intensity”



Crop Protection

Product name: Stratego YLD & Leverage 360

Product Labels: http://fs1.agrian.com/pdfs/Stratego_YLD_Fungicide_Label1a.pdf
http://fs1.agrian.com/pdfs/Leverage_360_Insecticide_Label3a.pdf

Bayer CropScience Product Descriptions:

“Stratego® YLD is a new fungicide for corn and soybeans, featuring the latest in triazole technology. Offering two different modes of action, it provides both preventive and curative activities, along with improved surface coverage and systemic movement to provide broad-spectrum, long-lasting disease control and higher yield potential.”

“Leverage® 360 insecticide has two modes of action against sucking and chewing pests – one delivers fast knockdown, the other extends residual control. Plus, Leverage 360 with Stress Shield™ protection helps plants stay vigorous for bigger yields.”



and

FROM



Bayer CropScience



Crop Protection

Product name: Stratego YLD & Leverage 360

Product Label: http://fs1.agrian.com/pdfs/Stratego_YLD_Fungicide_Label1a.pdf
http://fs1.agrian.com/pdfs/Leverage_360_Insecticide_Label3a.pdf

Crop Protection – Stratego YLD & Leverage 360 on Soybeans (12 Trials)

Application Timing: R3-R4

Application Rates: Stratego YLD 4 oz/A

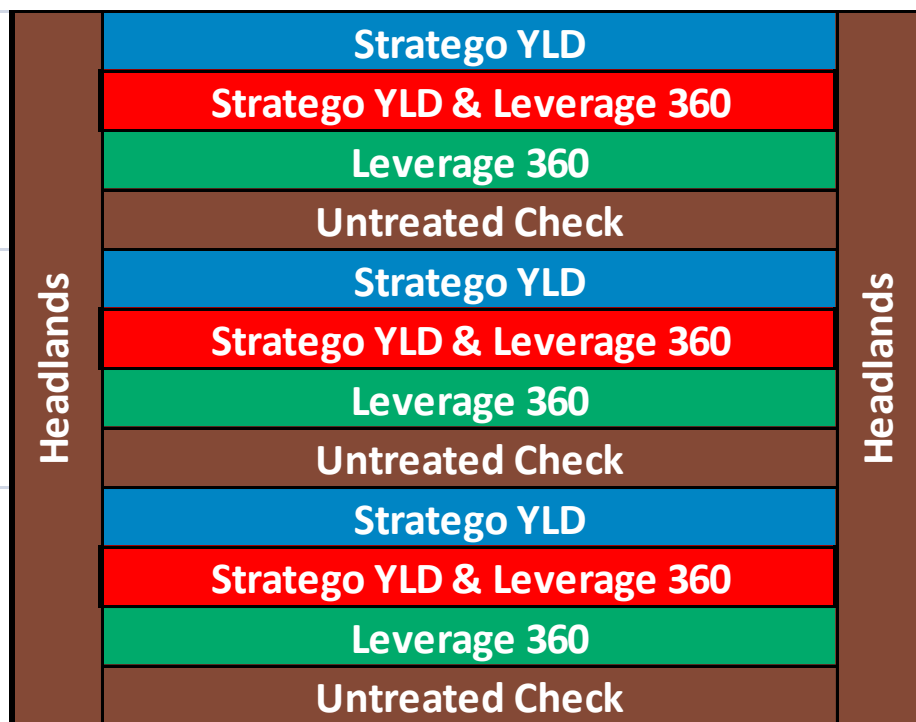
Leverage 360 2.8 oz/A

• Click on the following link to view the full protocol:

<http://www.isafarmnet.com/protocols.html>



FROM



Crop Protection

Product name: Stratego YLD

Product Label: http://fs1.agrian.com/pdfs/Stratego_YLD_Fungicide_Label1a.pdf

Bayer CropScience Product Description: “Stratego® YLD is a new fungicide for corn and soybeans, featuring the latest in triazole technology. Offering two different modes of action, it provides both preventive and curative activities, along with improved surface coverage and systemic movement to provide broad-spectrum, long-lasting disease control and higher yield potential.”

Crop Protection – Stratego YLD on Continuous Corn (24 trials)

Application Timing: V5

Application Rate: 5 oz/A

Click on the following link to view the full protocol:

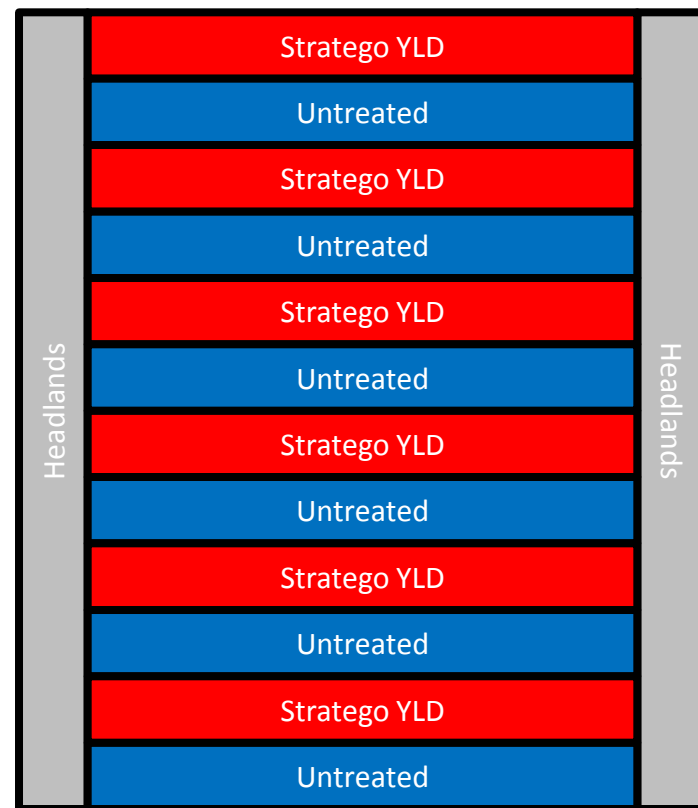
<http://www.isafarmnet.com/protocols.html>



FROM



Bayer CropScience



Crop Protection

Product name: Counter 20G

Product Label: http://www.amvac-chemical.com/media/pdf/products/specimen_labels/counter_20G_SmartBox.pdf

AMVAC Product Description: “Systemic Insecticide/Nematicide- The smart solution for full spectrum control; from wireworms to rootworms to nematodes.”

Crop Protection – Counter 20G on Continuous Corn (15 trials)

Application Timing: Planter - Smartbox

Application Rate: 6 oz/1000 row ft.

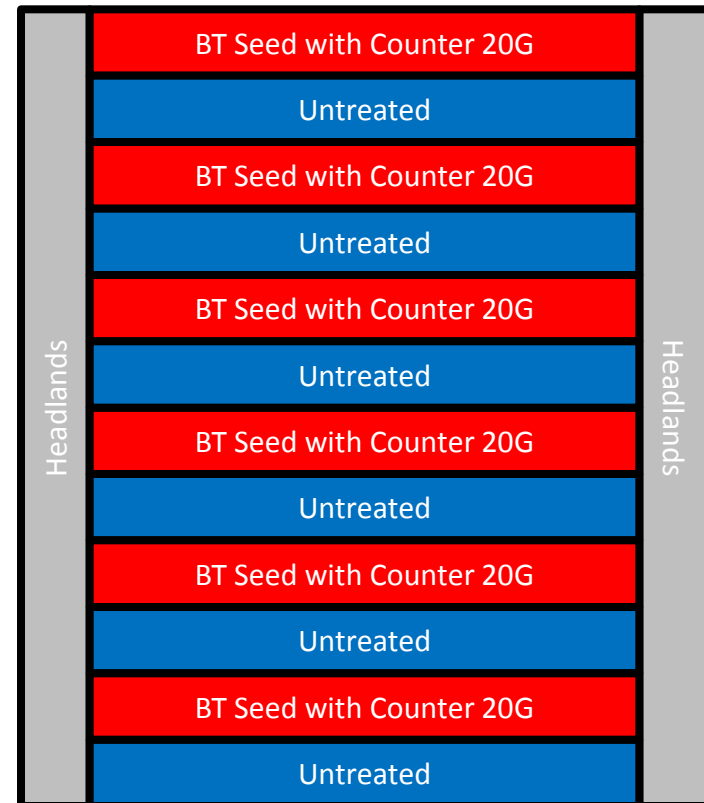
Click on the following link to view the full protocol:

<http://www.isafarmnet.com/protocols.html>



Counter Smartbox 20G

FROM



For the following list of trials that meet ISA On-Farm Network[®] protocol with confirmed intent, ISA agrees to:

- Provide products
- Pay the grower a \$600 trial hassle fee after the successful completion of the project
- Attempt to collect aerial imagery for each trial and process a final report

Crop Protection

Product Name: Authority Assist

Product Label: <http://www.fmccrop.com/alfresco/service/fmc/crop/product-labels/Authority%20Assist?guest=true>

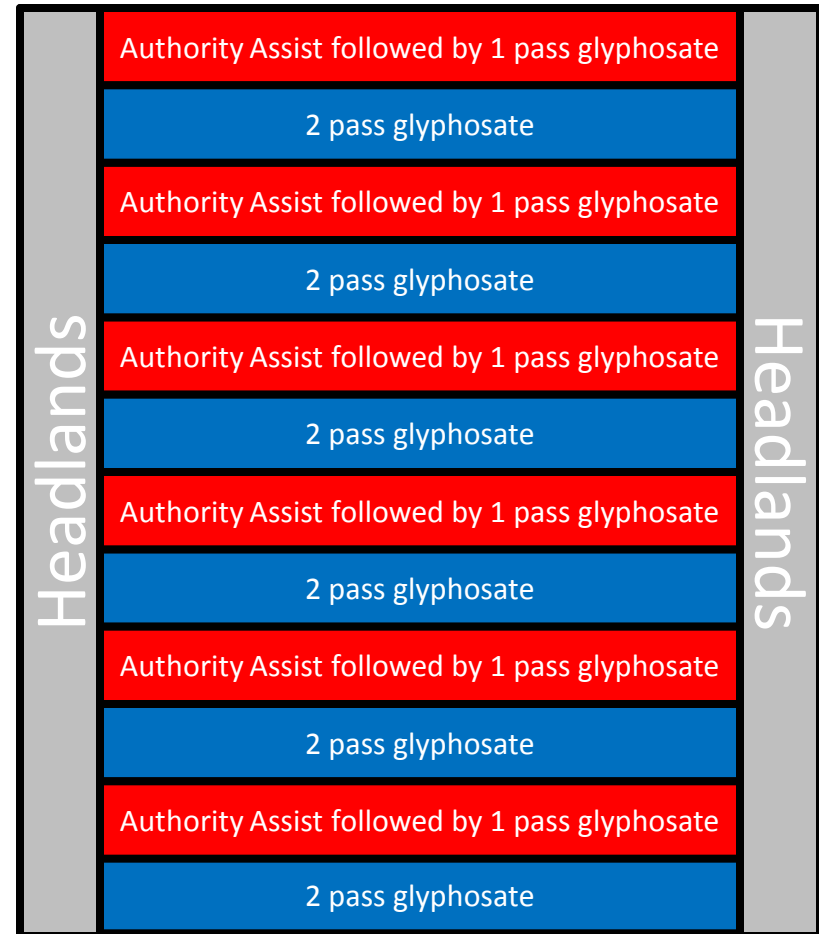
FMC Product Description: "Tough broadleaf weed control with added grass assistance."

Authority Assist on Soybeans (10 Trials)

- Rate: 6 oz/a of Authority Assist to be followed by post application of Roundup on Roundup Ready soybeans or Ignite on Liberty Link soybeans
- Applied pre-emerge
- Click on the following link to view the full protocol: <http://www.isafarmnet.com/protocols.html>



FROM



Crop Protection – “High Intensity” Trials

Product Names: BASF - Verdict, Outlook, Headline, Respect
FMC – Authority Assist, Headline, Hero

Product Label: Not Provided

Trial Description:

“Increase awareness of options to an all glyphosate system for soybeans by conducting on-farm evaluations through a program that combines both residual and post-emergence herbicide applications to an all glyphosate system. In addition, the residual treatment would be accompanied by additional practices that are known to improve soybean yields. The evaluations would contrast the lower intensity all glyphosate system to a higher intensity management system.”



Manure

Product name: **Manure Manager**

Product Label: Not Available Online

Company Product Description: “reduces phosphorus lock-up and nitrogen loss through volatilization and leaching when treated on livestock manures.”

Manure with Manure manager (10 Trials)

Application Timing: Fall or Spring

Application Rate: 18 oz/A

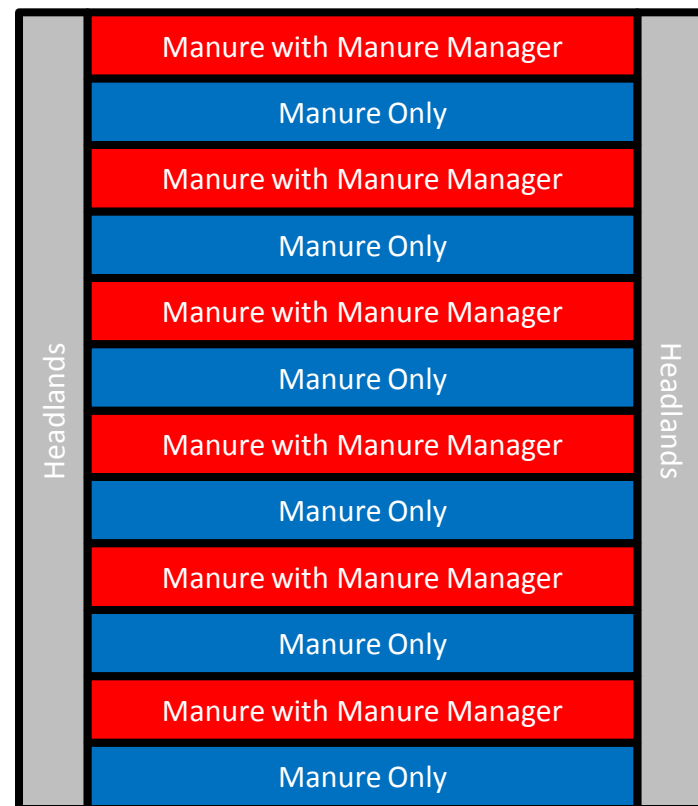
Click on the following link to view the full protocols:

<http://www.isafarmnet.com/protocols.html>



and

FROM



Nitrogen – Manure Plus 50 lbs

The purpose of this project is to quantify the agronomic and economic impacts of adding an additional 50 lbs. of nitrogen to manure applied at the recommended N level.

Nitrogen – Manure plus 50 (15 Trials)



Click on the following link to view the full protocol:

<http://www.isafarmnet.com/protocols.html>

Nitrogen Trials

- UAN with Agrotain Plus
- Broadcast plus SD vs. Only SD
- Normal minus 50 lbs N
- Normal plus 50 lbs N
- UAN vs. NH₃
- Ultimate Nitrogen



UAN Products

Product name: **Agrotain Plus**

Product Label: www.agrotaininternational.com/labels/AgrotainPlusDCLabel100405.pdf

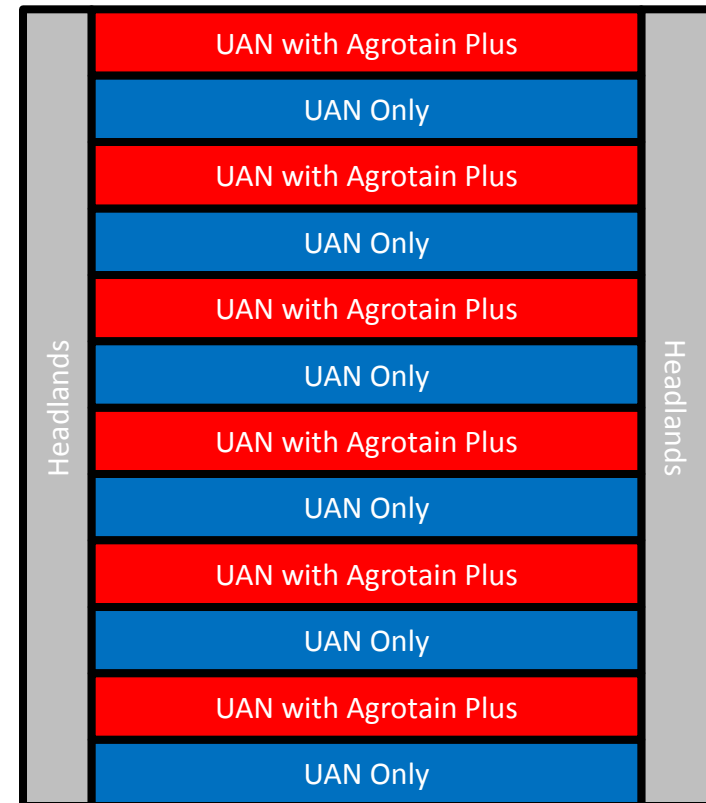
Company Product Description: “A dry nitrogen fertilizer suspension additive for UAN solution. Agrotain Plus contains both a urease inhibitor which prevents nitrogen loss by ammonia volatilization from synthetic or organic urea, and dicyandiamide (DCD), an organic nitrogen material which retards nitrification.” Urease inhibitor is Agrotain and nitrification inhibitor is dicyandiamide (DCD).”

Nitrogen – UAN with Agrotain Plus (7 Trials)

- Rate: 15 lbs per ton of UAN
- Applied with UAN early spring
- Click on the following link to view full protocol:
<http://www.isafarmnet.com/protocols.html>



FROM



For the following list of N trials that meet ISA On-Farm Network[®] protocol with confirmed intent, ISA agrees to:

- Cover yield loss – see protocol for details.
- Pay the grower a \$200 trial hassle fee after the successful completion of the project.
- Attempt to collect stalk nitrate samples from each field and provide them at no cost to the grower.
- Attempt to collect Aerial Imagery for each field for processing
- Limited 2 trials per grower in each category – unless authorized to do more.

Nitrogen – All Sidedress vs. Broadcast plus Sidedress

The purpose of this project is to answer some of the many questions and concerns growers have related to applying all of the N needed for corn at sidedress compared to broadcasting a portion of the N and applying the remaining amount at sidedress. Some of these questions include:

- Does waiting until sidedress reduce yield potential?
- Will the early N be available when the crop needs it?
- Does early vigor translate to gains in yield?
- Is the potential loss from early N application more critical than early N stress?
- Click on the following link to view the full protocol:
<http://www.isafarmnet.com/protocols.html>



Nitrogen – Normal Rate N vs. Normal Rate minus 50 lbs

The purpose of this project is to quantify the agronomic and economic impacts of reducing rates of N fertilization. This information is needed to address narrowing profit margins and mounting concerns about losses of N from fields. Instead of assuming all fields across Iowa need the same amount of N, this trial allows growers to account for their own experience and management practices used on their farms.



Nitrogen – Normal plus 50 & Normal minus 50 (20 Trials)



Click on the following link to view the full protocol:

<http://www.isafarmnet.com/protocols.html>

Nitrogen – Normal Rate N vs. Normal Rate plus 50 lbs



The purpose of this project is to quantify the agronomic and economic impacts of increasing rates of N fertilization following a wet spring. This information is needed to address narrowing profit margins and mounting concerns about losses of N from fields to surface water. Instead of assuming all fields across Iowa need the same amount of N, this trial allows growers to account for their own experience and management practices used on their farms.

Nitrogen – Normal plus 50 & Normal minus 50 (20 Trials)



Click on the following link to view the full protocol:

<http://www.isafarmnet.com/protocols.html>

Nitrogen – UAN vs. NH_3

The purpose of this project is to quantify differences in the agronomic and economic impacts of applying NH_3 and UAN applied at the same time and rate.



Click on the following link to view the full protocol:

<http://www.isafarmnet.com/protocols.html>

Nitrogen – Ultimate N

The purpose of this project is to identify which portions of the field need more or less N. This is achieved by using two uniform rates that vary by 25 pounds of N per acre applied in alternating strips across the field. The areas with larger differences in yields need more N.



Click on the following link to view the full protocol:

<http://www.isafarmnet.com/protocols.html>

Plant Nutrition

- MicroEssentails (MESZ)
- SuperCal SO4

Plant Nutrition Trials

Product name: MicroEssentials™ SZ (MESZ)

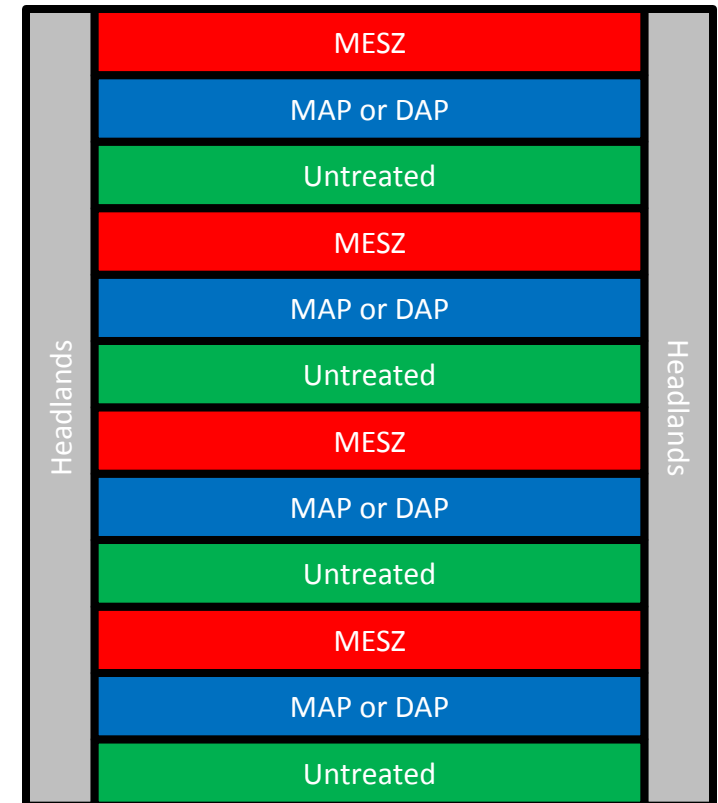
Product Label: www.mosaicco.com/products/specialty_products_microessentials_sz_12-40-0-10-1.htm

Company Product Description: “MicroEssentials™ SZ (MESZ) 12-40-0-10-1 fertilizer is designed to supply P₂O₅, sulfur, and zinc in every granule in the right ratio and at the right time to a developing crop”

Plant Nutrition - MicroEssentials™ SZ (MESZ) on Corn (5 Trials)

- Rate: MESZ 175 lbs, MAP 140 lbs, DAP 150 lbs (70 lbs P205)
- Soil applied with phosphorus (DAP or MAP)
- Click on the following link to view the full protocol:

<http://www.isafarmnet.com/protocols.html>



FROM



Plant Nutrition Trials

Product name: MicroEssentials™ SZ (MESZ)

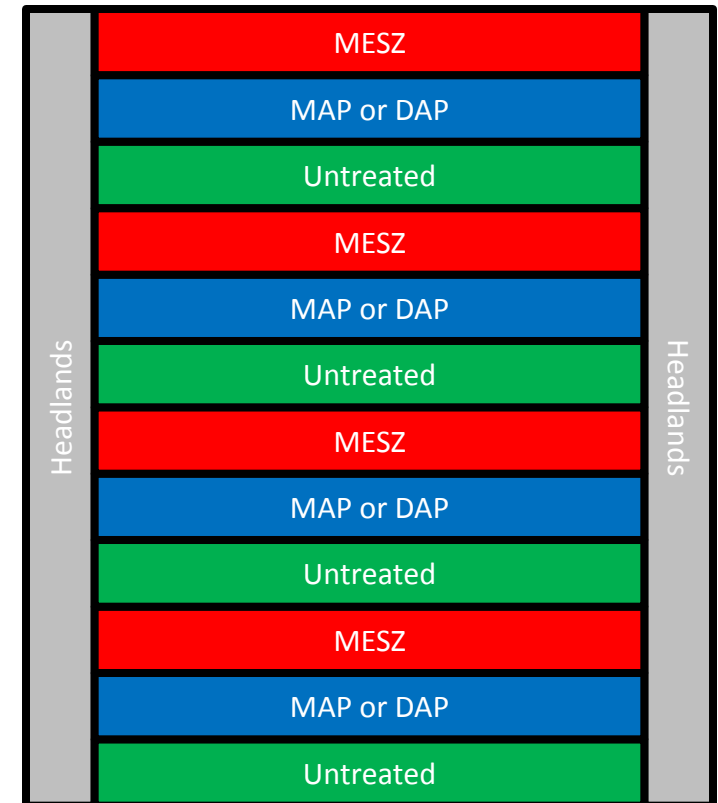
Product Label: www.mosaicco.com/products/specialty_products_microessentials_sz_12-40-0-10-1.htm

Company Product Description: “MicroEssentials™ SZ (MESZ) 12-40-0-10-1 fertilizer is designed to supply P₂O₅, sulfur, and zinc in every granule in the right ratio and at the right time to a developing crop”

Plant Nutrition - MicroEssentials™ SZ (MESZ) on Soybeans (5 Trials)

- Rate: MESZ 100 lbs, MAP 80 lbs, DAP 90 lbs (40 lbs P205)
- Soil applied with phosphorus (DAP or MAP)
- Click on the following link to view the full protocol:

<http://www.isafarmnet.com/protocols.html>



FROM



Sulfur Trials

Product name: SuperCal SO4

Product Label: <http://www.calciumproducts.com/supercal-so4-analysis.cfm>

Company Product Description: "...available sulfur is what it is all about. Elemental sulfur is unavailable to plants. The plant can not absorb elemental sulfur through the root system. However, sulfur in the sulfate form (SO₄)²⁻ can be absorbed through the root system which means it works. And SuperCal SO4 will not acidify your soils."

Plant Nutrition - SuperCal SO4 on Corn (50 Trials)

Application Rate: 300 lbs/A

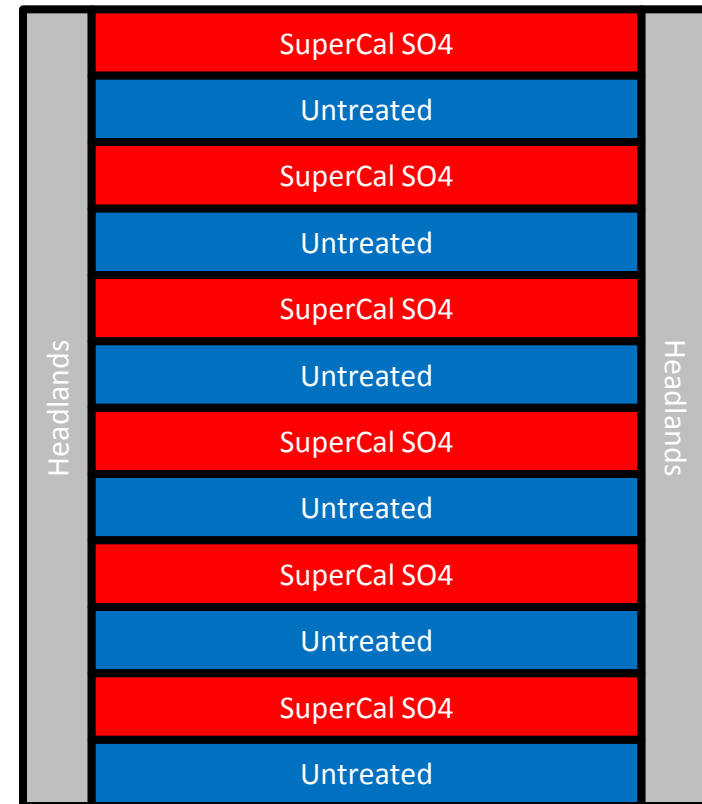
Timing: Fall or Spring

Click on the following link to view the full protocol:

<http://www.isafarmnet.com/protocols.html>

SuperCal SO4

FROM



Population



Soybean Population Trials

- 50 Successful Trials
- Suggested population rate difference 30,000 seeds per acre
- Example 130K vs. 160K

Corn Population Trials

- 50 Successful Trials
- Suggested population rate difference 5,000 seeds per acre
- Example 31K vs. 36K

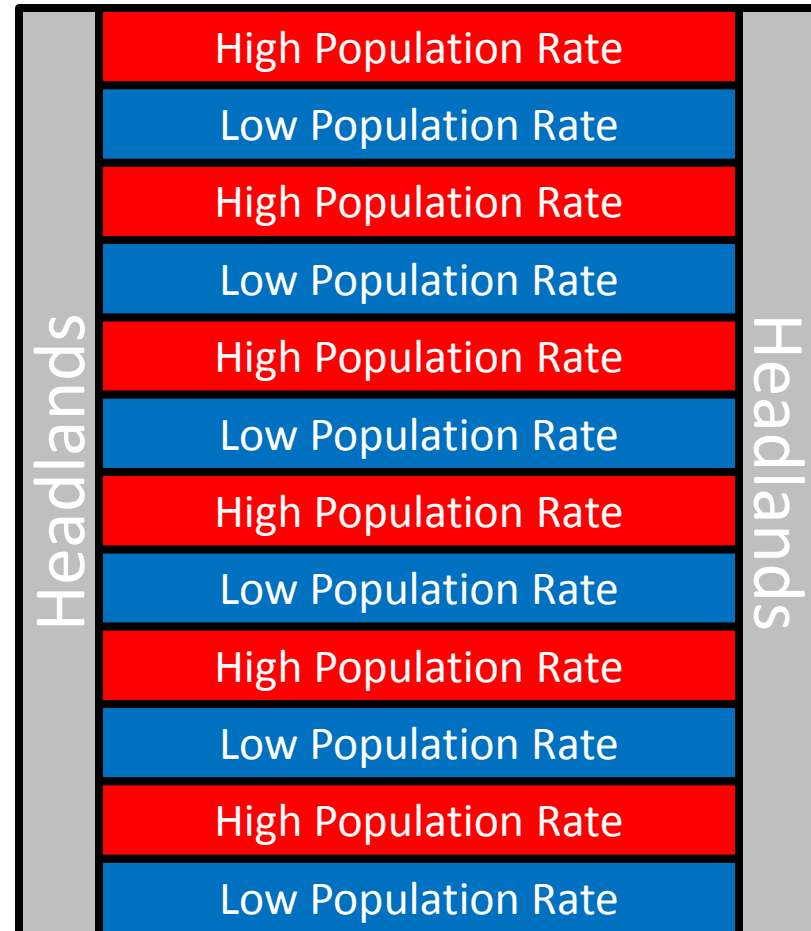
Replicated across the entire field

All other factors in the trial must be managed the same

Population



1. Changing the population rates on the planter after each pass either manually or with a planter controller.
2. Using split planter configuration if the planter is equipped with the capability to apply each half with a different population.
3. Using high accuracy GPS to plant every other pass with one population and then filling in the skipped passes with the second population.



Replicated Strip Trial Guidelines

1. Keep it simple; just compare two treatments in a given trial. In some trial protocols, three treatments may be necessary to accommodate specific research desired by product manufacturers.
2. Keep all other management practices in the trial area the same (i.e., same variety or hybrid, seed treatment, planting date).
3. Replicate treatments at least four times with the rows, in side-by-side strips across the field at least the width of your combine header. More replications are better.
4. Record the treatment positions with a GPS mapping system. Flag the starting point. Keep detailed notes such as: application dates, crop stage, and any other comments relative to the trial.

Harvesting Guidelines

1. Make sure the yield monitor is properly calibrated.
2. Use only one combine to harvest the trial area.
3. If possible, harvest the entire trial the same day.
4. Harvest with the rows and not at an angle.
5. Record the treatments using loads or regions in the yield monitor.

What do you need to send to the On-Farm Network® after setting up a replicated strip trial?

- 1. 2011 ISA Replicated Strip Trial Registration Form** – complete one of these forms for each trial. These forms will be dropped off with the delivered product. Return the completed form(s) to: Iowa Soybean Association, On-Farm Network, Attention: Matt Sweeney 1255 SW Prairie Trail Parkway Ankeny, IA 50023.
- 2. GPS as-applied data and field boundary files** – The preferred format of GPS as-applied data files sent to the ISA On-Farm Network is raw data directly from the memory card or internal memory from the mapping system. You can also send the data in shapefile format including field boundaries. Be sure to send the .shp along with the .dbf, .shx, & .prj files.
- 3. GPS yield data** – is raw data directly from the memory card. Send GPS as-applied, field boundaries and yield data to:
msweeney@iasoybeans.com

Thank you for being a part
of the On-Farm Network®

Questions??

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