

2009 Solution Days –

Bob Kacvinsky –

Maximize Yield Potential

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Feed Your Soybeans— Not the Weeds

Soybean Weed Management
Bob Kacvinsky
Syngenta Crop Protection

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Soybean Weed Management

Weeds Compete for: Nutrients - Water - Space

2008 Trials: Planting Early (4-26) 89.9 bu
Cruiser Seed Treatment = vs
Pre Herbicide (Boundary) 74.8 bu
Quadris Fungicide (net +15 bushels)



No Pre Herbicide Boundary 1.5 pts Pre

York, NE Learning Center Trial Source: Credits are trademarks of Syngenta Group Co.

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Weeds Produce up to 40 Times the BioMass of Crops
Water and Nutrients Are Consumed to Build BioMass



How Many Velvetleaf ?

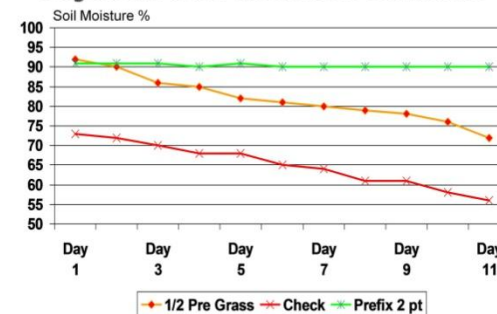
153 Velvetleaf per sq yd
740,520 per acre

Plant (@5")	Plant Pop	Dry Matter lbs/Ac
Corn	32,000	75.9#
Soybeans	150,000	659#
Grass (3")	1.96 mil	2710#
Kochia	740,520	2556#
Waterhemp	740,520	3640#
Velvetleaf	740,520	2710#

Avg Corn/Weed Ratio:
1:38
Soybean/Weed Ratio:
1:5

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Soybean Soil Moisture Sensors

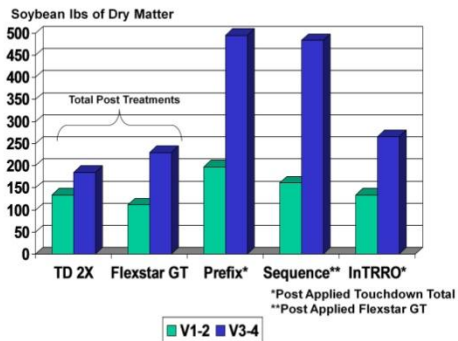


Day 1 on graph begins June 17, 2008. Soil Moisture measured at 6" soil depth.
Syngenta Learning Center, York, NE. Touchdown Total 32 oz applied June 11th.

Prefix, Touchdown Total are trademarks of Syngenta Group Co.

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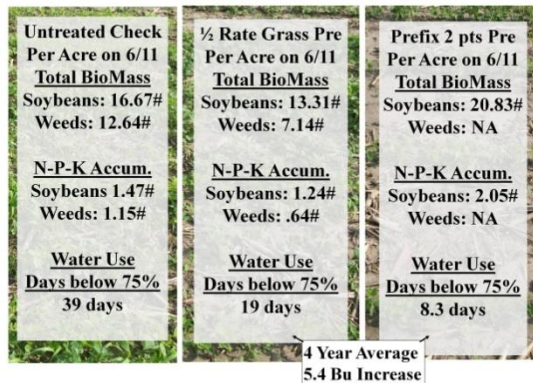
2009 Syngenta Learning Center, York



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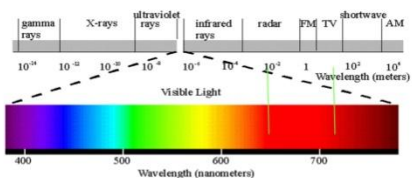
2008 Syngenta Learning Center Soybean Herbicide Trial



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Red and Far-Red Light

- Red light has a wavelength of approximately 660 nanometers.
 - Wavelength used for Photosynthesis – Absorbed by plants
- Far-Red light has a wavelength of approximately 730 nanometers.
 - Wavelength just outside of Photosynthesis useful range.

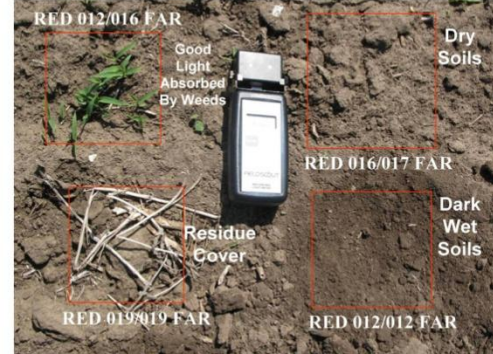


Ratio of RED to FAR Red helps determine lost Reflective Light to Weeds
 RED/FAR Ratio = 1.0 = Good Light Efficiency
 RED/FAR Ratio <1.0 = Less Efficient Light Use

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Photosynthesis Light - Red:Far Red

Photon Units of Light Wavelength - Higher RED Levels Provide Best Plant Light



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Reflective Photosynthetic Light



- Up to 40% of Light Used by Plants is Reflected
- Weeds Absorb Good Red Light
Reflect Bad Far Red Light
- Weed Free Reflects 94+ % of Good Light
- Reduced Pre Rate Reflects 64% of Good Light
- Weeds Absorb over 66% of Good Light

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Syngenta Learning Center Soybean Herbicide Trial

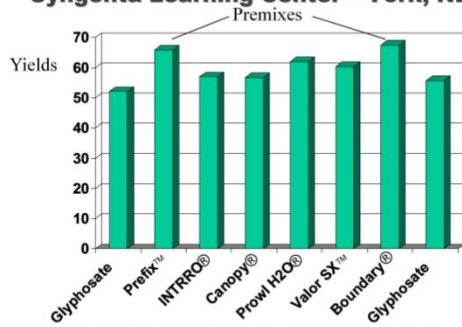


2008 Learning Center, York, NE

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Syngenta Learning Center – York, NE



2007 Syngenta Learning Center, York, NE. Treatments made Pre. Glyphosate treatments made post when weeds were 2-4"; 3-6"; 5-8". Research conducted by Midwest Research, Inc. York, NE

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2009 Corn and Sorghum Plant Orientations Weed Free vs Early Weed Competition

Lexar® 3 qts Treated Pre Plant



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