

## Evaluation of Awaken Fertilizer Additive to Wheat

**Cooperators:** Producer: Midway Farms, Inc.  
 Extension: Keith Balderson, VCE, Essex, Dr. Mark Alley, Soil Fertility Specialist, Virginia Tech  
 Agribusiness: Marvin Martz, Royster-Clark

**Previous Crop:** Corn

**Soil Type:** Kempsville sandy loam

**Variety:** Vigoro 9110

**Fertilization:** 40-60-0 in December  
 50-0-0 on February 23, 2005  
 50-0-0 in early April

**Planting Date:** November 10, 2004

**Seedbed Preparation:** No-till

**Herbicides:** Glyphosate as a burndown, .5 oz. per acre Harmony on 2/23/05

**Date Harvested:** June 25, 2005

<u>TREATMENT</u>	<u>REP.</u>	<u>MOISTURE</u>	<u>TW</u>	<u>YIELD @ 13.5%</u>
Awaken	1	12.3	59	66.5
Check	1	13.2	59	69.1
Awaken	2	13.0	59	69.2
Check	2	12.5	59	62.0
Awaken	3	13.0	59	66.7
Check	3	12.8	59	69.0
Awaken	4	12.5	59	62.8
Check	4	12.2	59	58.0
<b>Averages:</b>				
Awaken		12.7	59	66.3
Check		12.7	59	64.5

**Discussion:**

Yields in this plot were somewhat low due to thin stands caused by poor seed germination. A germination test showed the seed to be over 90%, but there were obvious germination problems in this field, and this probably accounts for the somewhat wide range in yields. Awaken 16-0-2 is a versatile fertilizer additive for use on many crops. In addition to nitrogen and potassium, it contains ACA and micronutrients. Some area growers have reported increased root growth and possible yield increases when using this product. We wanted to see if we could get a yield response with this product. Two quarts per acre were applied in water on January 5<sup>th</sup>. There was no significant increase in yields in the Awaken plots.

## Late Season (Heading) Foliar Fungicide Treatment on Minimum Tilled Wheat

**Cooperators:** Producer: L. C. Davis Sons  
 Extension: David Moore, Middlesex, VCE; Paul Davis, New Kent/Charles City VCE  
 Agribusiness: Rick Love, Bayer Crop Science; Ralph Hall, Syngenta

**Tillage:** 2 x disked  
**Soil Type:** Altavista, fine sandy loam  
**Variety:** Sisson  
**Fertilization:** Pre-plant broadcast 40-80-80 October 12, 2004  
 Winter N 44# 24-0-0-3 February 19, 2005  
 Spring N 70# 30%UAN April 8, 2005

**Planting Date:** October 27, 2004  
**Herbicides:** Post emergence December 5, 2004 4.75oz Osprey + .33oz Harmony GT  
**Insecticides:** December 5, 2004 2.5oz Warrior  
**Date Harvested:** July 5, 2005

<b>TREATMENT</b>	<b>REP 1</b>	<b>REP 2</b>	<b>REP 3</b>	<b>REP 4</b>
Untreated	86.8	71.6	95.0	83.6
Folicur	No Yield	84.1	91.2	85.8
Stratego	82.4	80.1	86.6	84.4
Quilt	No Yield	84.0	87.5	85.1

<b>4 Rep Averages:</b>	<b>YIELD</b>	<b>% MOISTURE</b>
Untreated	83.6	18.7
Folicur	85.8	19.3
Stratego	84.4	18.8
Quilt	85.1	19.3

Fungicides applied on May 10, 2005

### **Discussion:**

This study was conducted to see if late season foliar fungicide applications could increase yields by protecting heads from glume blotch and scab. As the results at this location show, there was no yield advantage to late season sprays this year. Throughout the entire growing season very little disease pressure occurred. Compare these findings with other studies before making major changes in your crop protection management.

## Late Season (Heading) Foliar Fungicide Treatment on No-Till Wheat

**Cooperators:** Producer: L. C. Davis Sons  
 Extension: David Moore, Middlesex, VCE; Paul Davis, New Kent/Charles City VCE  
 Agribusiness: Rick Love, Bayer Crop Science; Ralph Hall, Syngenta

**Tillage:** No-Till into mowed corn stalks  
**Soil Type:** Altavista, fine sandy loam  
**Row Spacing:** 7" rows  
**Variety:** Sisson  
**Fertilization:** Pre-plant broadcast 40-80-80 October 12, 2004  
 Winter N 44# 24-0-0-3 February 19, 2005  
 Spring N 70# 30%UAN April 8, 2005  
**Planting Date:** October 27, 2004  
**Herbicides:** Burndown 1.5pts Gramoxone Max October 12, 2004  
 Post emergence 4.75oz Osprey, .33oz Harmony GT December 5, 2004  
**Insecticides:** December 5, 2004 2.5oz Warrior  
**Date Harvested:** July 5, 2005

### Yield bu/A

<b>TREATMENT</b>	<b>REP 1</b>	<b>REP 2</b>	<b>REP 3</b>	<b>REP 4</b>
Untreated	96.0	98.9	97.1	No Yield
Folicur	92.6	101.8	96.7	93.1
Stratego	107.7	105.7	98.6	105.5
Quilt	103.9	106.5	97.2	No Yield

<b>4 Rep Averages:</b>	<b>bu/A</b>	
	<b>YIELD</b>	<b>% MOISTURE</b>
Untreated	97.3	18.1
Folicur	96.1	18.0
Stratego	104.4	18.7
Quilt	102.5	18.3

Fungicides applied on May 10, 2005

**Discussion:**

This study was conducted to see if late season foliar fungicide applications could increase yields by protecting heads from glume blotch and scab. Yields from all treatments were excellent with a slight yield increase from the Stratego and Quilt treatments. Disease pressure was at a minimum throughout the growing season. There were several small rain events during flowering but scab did not become a problem.

Compare these findings with similar late season fungicide studies before making major changes in your crop protection management.

## Foliar Fungicide Treatments at Flag Leaf on No-Till Wheat

**Cooperators:** Producer: L. C. Davis Sons  
 Extension: David Moore, Middlesex, VCE; Paul Davis, New Kent/Charles City VCE  
 Agribusiness: Rick Love, Bayer Crop Science; Ralph Hall, Syngenta

**Tillage:** No-Till into mowed corn stalks  
**Soil Type:** Altavista, fine sandy loam  
**Row Spacing:** 7" rows  
**Variety:** Sisson  
**Fertilization:** Pre-plant broadcast 40-80-80 October 12, 2004  
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**Planting Date:** October 27, 2004  
**Herbicides:** Burndown 1.5pts Gramoxone Max October 12, 2004  
 Post emergence 4.75oz Osprey, .33oz Harmony GT December 5, 2004  
**Insecticides:** December 5, 2004 2.5oz Warrior  
**Date Harvested:** July 5, 2005

### Yield bu/A

<b>TREATMENT</b>	<b>REP 1</b>	<b>REP 2</b>	<b>REP 3</b>	<b>REP 4</b>
Untreated	99.5	95.9	99.3	88.7
Tilt	97.5	94.7	96.1	93.1
Quilt	91.2	100.3	90.6	102.3
Quadris	105.8	96.9	99.3	95.8
Stratego	101.2	100.4	102.3	96.3
Folicur	96.0	96.1	101.2	92.8

	<b>bu/A</b>	
<b>4 Rep Averages:</b>	<b>YIELD</b>	<b>% MOISTURE</b>
Untreated	95.9	18.0
Tilt	95.4	18.0
Quilt	96.1	18.0
Quadris	99.2	18.0
Stratego	100.1	17.8
Folicur	96.5	17.6

Fungicides applied on April 25, 2005

## **Discussion:**

This study was conducted to evaluate yield increases by protecting the flag leaf from blotch, tan spot, and powdery mildew. Wheat disease pressure was very light the entire growing season in this plot. No diseases approached threshold levels thus there was not a lot of difference in yields between all the flag leaf fungicide treatments. The Stratego treatment did out yield the untreated check in all four replications, and average 4.2 bushels per acre higher than the untreated check over all four replications. The Quadris treatment yielded 3.3 bushels per acre higher than the untreated check over four replications.

When selecting wheat cultivars to plant, select those with good disease resistance along with yield, test weight and standability. Always scout and use BMP information before applying crop protection chemicals.