

# *Considerations for Purchasing a Guidance System*

2009 Precision Ag & Field Crops Conference  
December 8, 2009

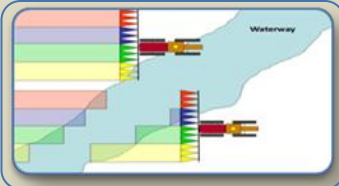
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# Topics



## Intro to Guidance Systems



## Benefits & Features



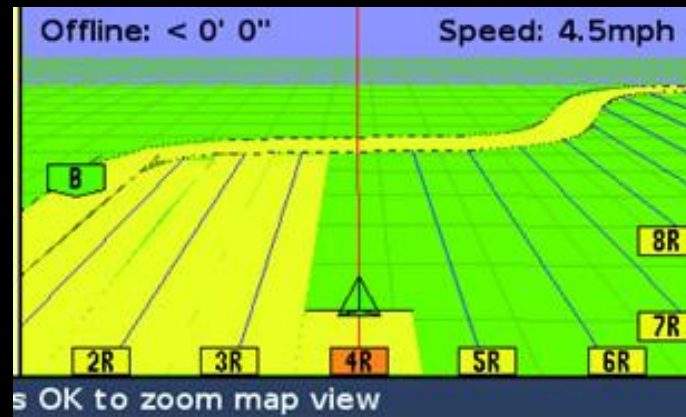
## Considerations

“There has been a large increase in first-time buyers of precision farming hardware . The rising costs of inputs have made everyone start to think about how they can save money.”

– *PrecisionAg.com, 2008 Tech Review*

# How it works

- Provides navigational aid to driver in the field
- Navigation based on width of vehicle
- Grower drives initial pass in the field
- System generates subsequent passes based on the original pass



# How it works

- Utilize WAAS (free GPS correction)
- Provides 6-12" pass-to-pass accuracy



# What can I do with it?

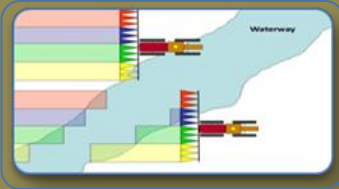
- Apply agronomic inputs
  - Spraying
  - Fertilizer / Litter
  - Litter
- Planting
- Mowing / Hay
- Acreage & Boundaries



# Topics



## Intro to Guidance Systems



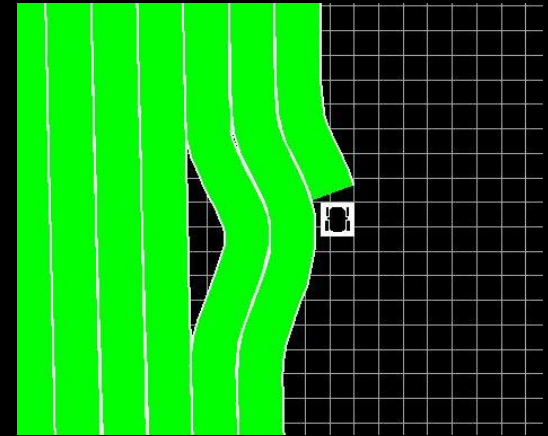
## Benefits & Features



## Considerations

# Why use a Guidance System?

- Decreases skips and overlap
  - Minimize driver errors
  - Eliminates guess rows
  - Up to 8.5% in row crop situations
- Increases efficiency
  - Operate at faster field speeds
  - Cover more acres with fewer hours of operation
  - Reduce per acre fuel consumption



# Why use a Guidance System?

## Non-Cash Benefits

- Extends operational hours  
– operate at night
- Minimizes driver fatigue
- Labor management



Missed Herbicide Application

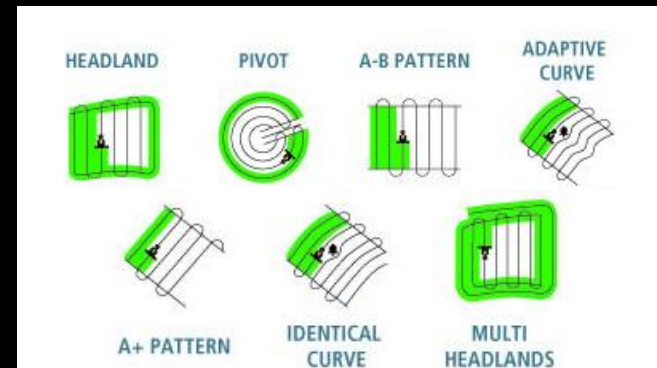


*More accurate placement of inputs*

| Technology                 | Percent Savings |
|----------------------------|-----------------|
| GPS-based Guidance Systems | 12.0%           |
| Implement Guidance         | 3.0%            |
| Variable-Rate Application  | 7.3%            |
| Auto-Swath                 | 4.6%            |
| <b>TOTAL SAVINGS</b>       | <b>26.9%</b>    |

# Features

- Color screen
- Previous pass feature
- Multiple guidance patterns
- Nudge feature



# Features

- User friendly
- Simple to install
- As applied mapping
- Add-ons – Boom control, assisted steering



## Event Details

|                          |                             |
|--------------------------|-----------------------------|
| Operator                 | John Doe                    |
| Applied Material         | Poultry Litter              |
| Event Created            | 2008-03-13 01:10:51pm       |
| Summary Created          | 2008-03-28 02:16:15pm       |
| Field Area               | 35.8148 a                   |
| Field Latitude/Longitude | 34°41'23.08"N 86°53'14.84"W |
| Total Time               | 05h 05m 49.0s               |
| Operator EPA license     | Default EPA                 |
| Harvest Year             | 2008                        |
| Farm Location            | Madison Co., AL             |
| Crop                     | Corn                        |
| Target Pests             | None                        |
| Application Method       | Spreader                    |

## Coverage

|                |                       |
|----------------|-----------------------|
| Start Time     | 2008-03-13 01:21:26pm |
| End Time       | 2008-03-28 02:15:40pm |
| Coverage Time  | 01h 55m 01.41s        |
| Coverage Area  | 40.4255 a             |
| Applied Volume | 3000lbs./acre         |

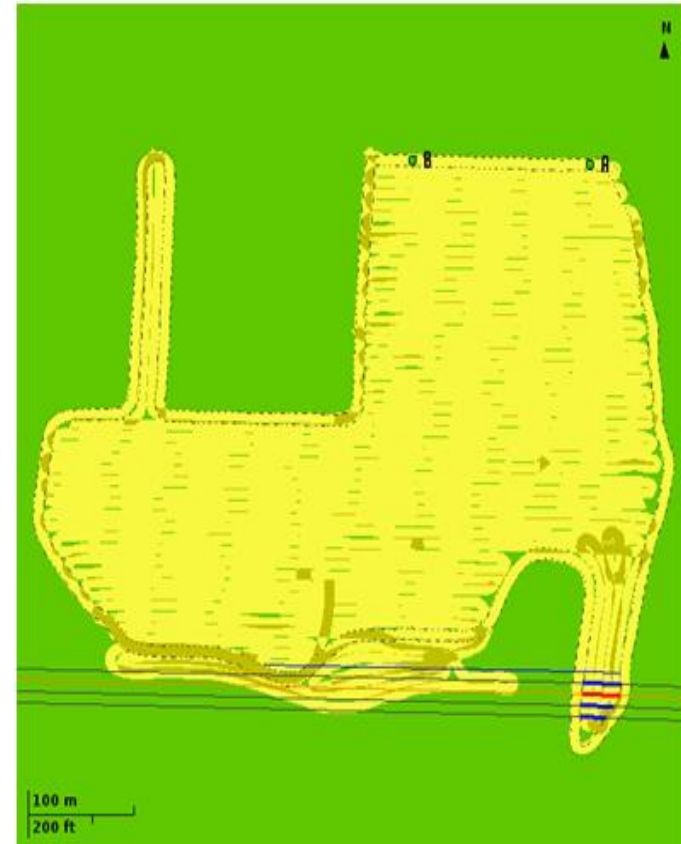
## Equipment

|                    |                        |
|--------------------|------------------------|
| Vehicle            | John Deere 7410        |
| Implement          | Chandler 16ft Spreader |
| Implement Width    | 28' 00"                |
| Number of Sections | N/A                    |

## Environmental Conditions

|                 |           |
|-----------------|-----------|
| Soil Conditions | Moist     |
| Soil Type       | Silt Loam |

## Overlap

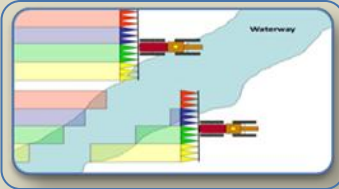


Covered Overlap

# Topics



## Intro to Guidance Systems



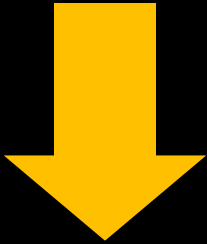
## Benefits & Features



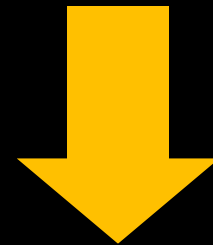
## Considerations

# Guidance Costs

Entry level guidance system ~\$1800 - \$3500



Guidance with subscription correction service and assisted steering ~\$8,500



Guidance with subscription correction service, assisted steering & auto-boom ~\$10,500



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Increase accuracy  
& cost

Guidance with subscription correction service  
and assisted steering ~\$8,500



Increase accuracy  
& cost

Guidance with subscription correction service,  
assisted steering & auto-boom ~\$10,500



# TOP 10 (David Letterman Style)

10. Is it upgradable?

9. Is it easy to move and install?

8. Are the menus easy to understand & navigate?

7. Can I download my data?

6. Do I need additional equipment or software?

# TOP 10 (David Letterman Style)

5. Does it do acreage determination?
4. Learning curve
3. What applications do I want to use it for?
2. Service
1. What are my future plans?