Aerial Application Optimization

Jim Gaffney
Technical Marketing Manager
BASF Corp, Raleigh, NC
Why Are We Here?

Purpose
• To Learn?
  • New Products/Technology
  • Industry Efforts
• To find solutions?
  • New Opportunities
  • Greater Responsibilities

Process
• Compare and Contrast
• BASF Initiatives

Pay-off
• Greater understanding
  • Of Opportunities and Responsibilities
One farmer fed 20 people in 1924
One farmer feeds 143 people today
There is less and less arable land for more and more people

- 3.2 billion people (1965) - 4,300 m² cropland/head
- 6.5 billion people (2005) - 2,200 m² cropland/head
- 8.3 billion people (2030) - 1,800 m² cropland/head
Mapping and Work Order Systems
Industry Identified Needs

Customer & Field Identification
- Build customer database
- Upload and/or create geo-referenced field boundaries
- Positive field identification

In-season Planning
- Plan season based on Pre-Orders
- Accept/Reject released orders
- Schedule missions for each applicator

Forecasting/Pre-planning
- Planning application
- Pre-Booking with target dates
- Release orders for application

Completion
- Alert retailers of order status
- Produce reports
- Inventory management
Aerial Business Management Tool

AgSync
Aerial Business Management System
It’s not just about maps anymore...

MAXIMIZE:
- Acres per hour
- Fuel Efficiency
- Accuracy
- Communication
- Profit

www.AgSync.com
Phone: (877) 923-5832

See what the next generation of AgSync can do for you. Visit us at the NAAA, booth 902.

AgSync 2010
Efficiency Gain vs. The Old Way

Comparison of 6 Major Tasks

- Mapping
- Ordering
- Order Tracking
- Mission Planning
- Chemical Application
- Reporting / Verification

Helping Our Customers Be More Successful
Mapping
The Old Way = gather paper maps
Customers are organized in a tree database where shape files for fields and zones are uploaded, selected or drawn only once.
Ordering

The Old Way = Hand write or export an order from another system and staple it to the field map
View a field or fields on the mapping page or in the customer tree and place an order on 1 page.

Orders can be placed instantly all the way down from the consultant or grower level.
Order Tracking

The Old Way = Phone calls

Phone call 1 = Has my field been ordered?

Phone call 2 = When will it be sprayed?

Phone call 3 = Have my fields been sprayed yet?

Phone call 4 = Did they spray the wrong field?

Phone call 5 = I need proof that the right field was sprayed!
A dashboard gives a snapshot of overall progress. Order progress can be followed all the way down to the grower level instantly without any phone calls.

Orders can be tracked by Grower, Field, Crop, Status, Mission, etc.
Mission Planning

The Old Way = Collecting paper maps and work orders then sorting them into product groups, region groups, etc. late into the night or at the plane.
Orders go directly to the Air Applicator where he can sort them into Missions and print Maps.

Orders are sorted by Products, Retailers, Regions, etc.

Orders can be grouped by the customer tree.

Orders can be grouped visually and by acres.
The Old Way = A work order from that is hand written or from Microsoft Excel, 
A plat map with the field highlighted, An aerial picture from Google, 
Possibly a shape file from any combination of programs...
Complete mission packet with work orders, overviews, coordinates, and shape files pre-built for Satloc, AgNav, Trimble and other units.
Verification

The Old Way = Grower stands beside the field and watches it get sprayed, or maybe receive an “as applied” map by December if the Air Applicator has the time and software to produce one.

Grower gets an invoice as verification that the work was completed.
AgSync can receive .log files directly from the airplane to produce a verification map.

Growers, Consultants, and Retail Ag Facilities will get immediate verification.
A Complete Work Order Solution

Helping Our Customers Be More Successful

Efficiency and Quality of Life for Retail and Aerial

www.Agsync.com

Stewardship, Safety, Efficiency, Peace of Mind
Operation S.A.F.E. Fly-In Program

• Earn up to $225 for NAAA membership (or towards spray equipment)

• Why is S.A.F.E. important?
  • Excellent learning opportunity
  • Customers more demanding
  • SAFETY & STEWARDSHIP!

• BASF Plant Health Coordinator Anthony “Tony” Goede is an Operation SAFE Analyst
NAAA Scholarship Program

- BASF and the NAAA are partnering to establish the scholarship
- BASF providing a $5,000 grant each year for next 3 years
- NAAA selects winner (starts in 2011)
  - The sponsor must be an NAAA member
  - May be more than one each year
  - Scholarship may be used for flight training or ag-related coursework

More Information Soon on the NAAA Website!
Applied Research: Equipment, Adjuvants, Volume

- Numerous nozzle types and rotary atomizers
- Diverse geographies, aircraft, and equipment
  - Volumes
  - Adjuvants
  - Drift Control Agents
- Working closely with aerial experts across the country
Did We Complete Our Mission?

- AgSync
  - A system that tracks an order from inception to application
- National Agricultural Aviation Association Initiatives
  - Increase membership
  - Stewardship and Safety
- Research
  - Awareness and Education
In the long term…

2 BILLION More People in 20 Years!
Thanks for Your Time and Interest!