

***Brassica carinata* Summit**

Southeast, US Production Update

March 15 & 16, 2016



Jet Fuel



Diesel Fuel



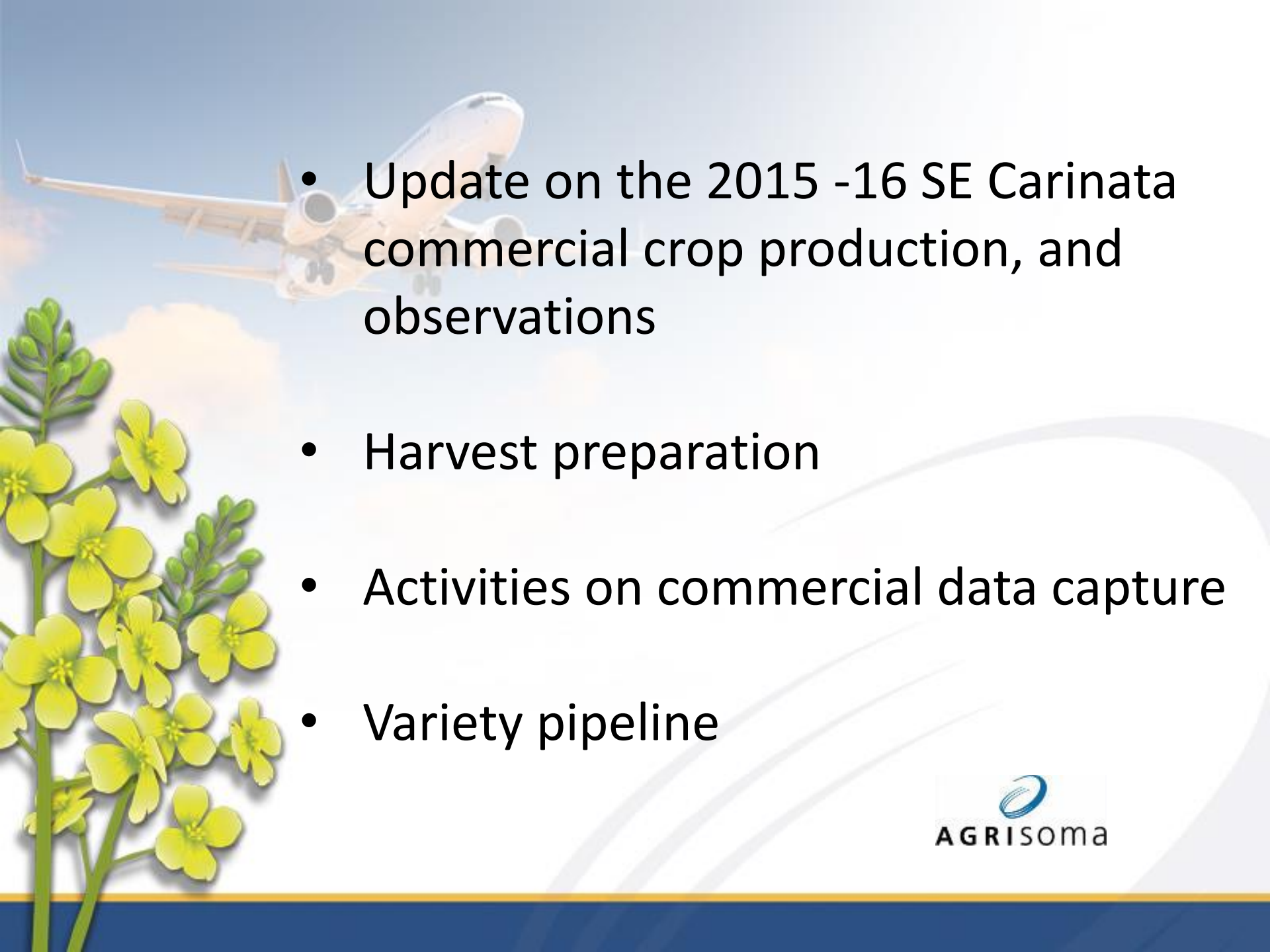
Green Chemistry

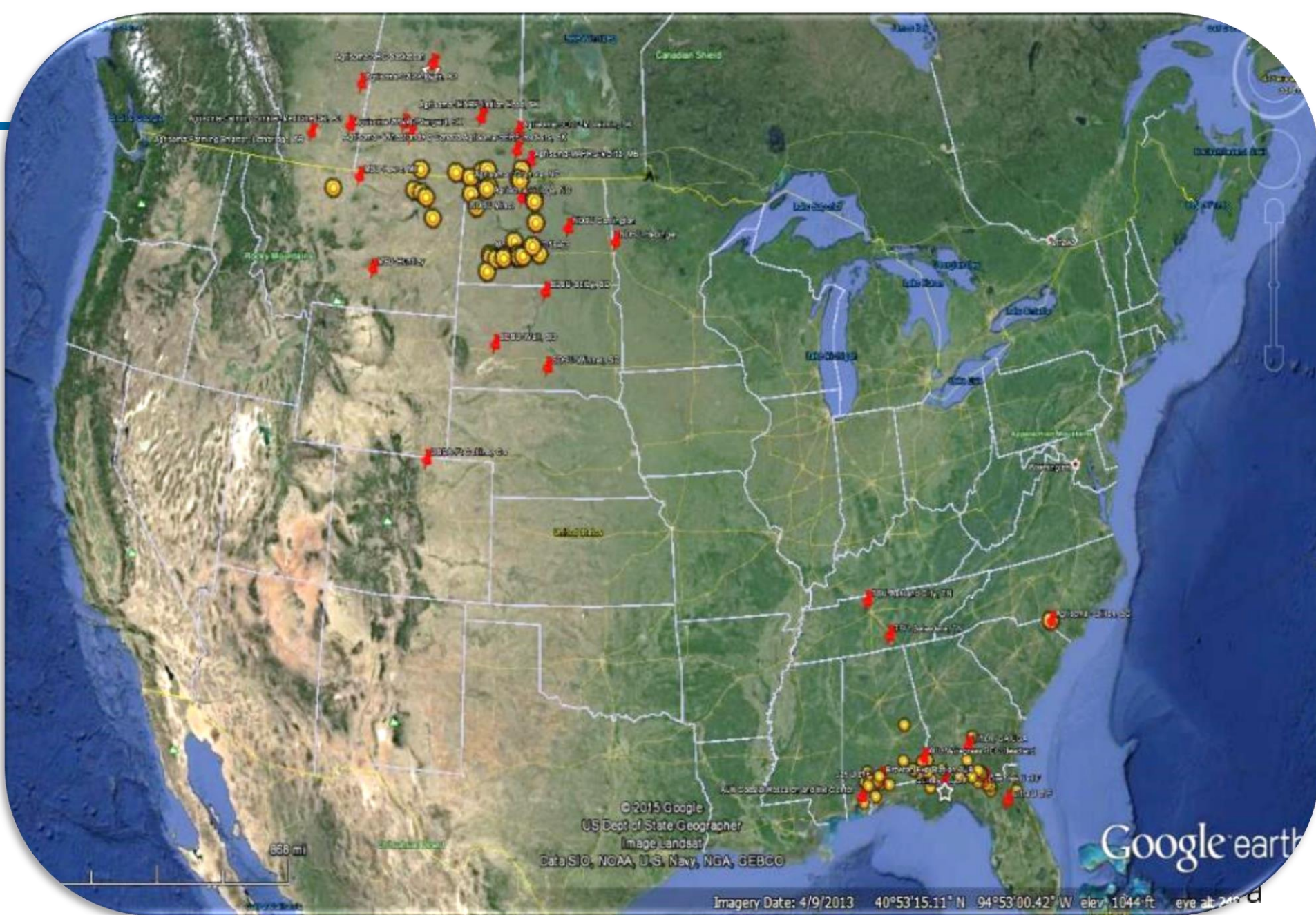


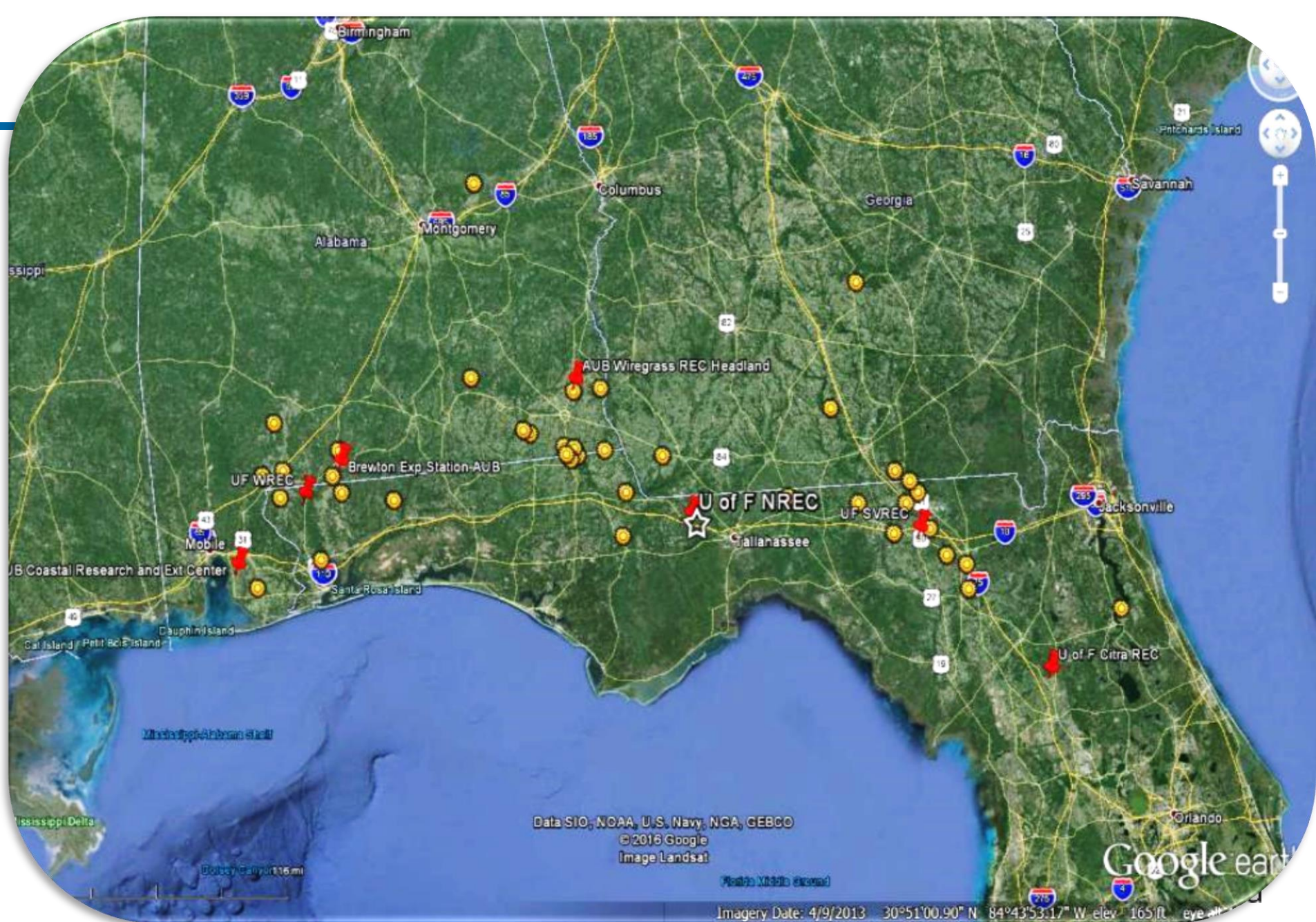
Animal Feed

Jeff Klingenberg
Agrisoma



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- Update on the 2015 -16 SE Carinata commercial crop production, and observations
 - Harvest preparation
 - Activities on commercial data capture
 - Variety pipeline





Data SIO, NOAA, U.S. Navy, NGA, GEBCO
© 2016 Google
Image Landsat

Google earth

Imagery Date: 4/9/2013 30°51'00.90" N 84°43'53.17" W elev 165 ft eye alt

SE Production Base 2016

- 19 Growers – 3 states
- 3800 FSA Acres
 - FL: 2810
 - AL: 865
 - GA: 125
 - Varieties
 - A120 (All locations)
 - 1 pre-commercial candidate (7 locations)
- Expecting 30 day harvest in May 2016

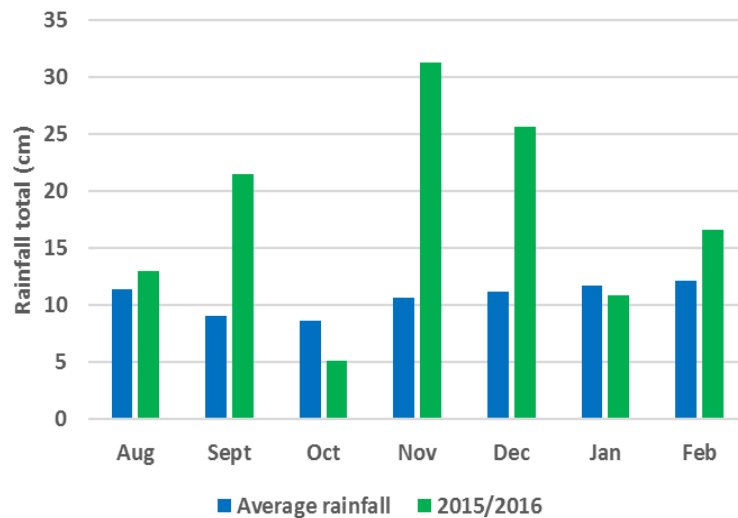
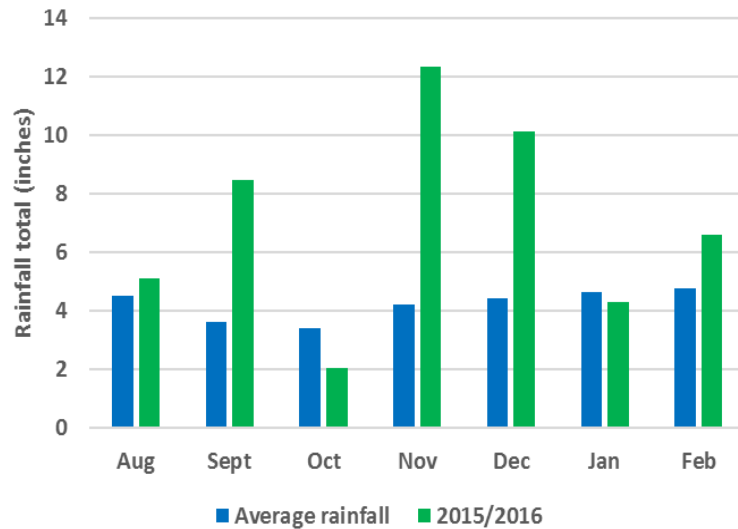


Crop Establishment

- 13 K acres intent to plant – 4K planted
 - ~ 100% weather related
 - Crop rotation forecasting
- Planting season: 1st week of October through Dec 15, 2015.



2015 Fall crop rotation challenges



Crop Establishment

- Opportunity to observe multiple planting densities, and row spacing via different planter types
- Observe planting date effects and validate harvest aid management
- Tracking herbicide residue effects
- Nutrient, pest management, harvest support
- Very good, overall stand establishment across region



Row spacing and planting density

7" RS, grain drill planter

3lb/ac

6lb/ac



36" RS, twin-row, air planter,
3.5 lb/ac



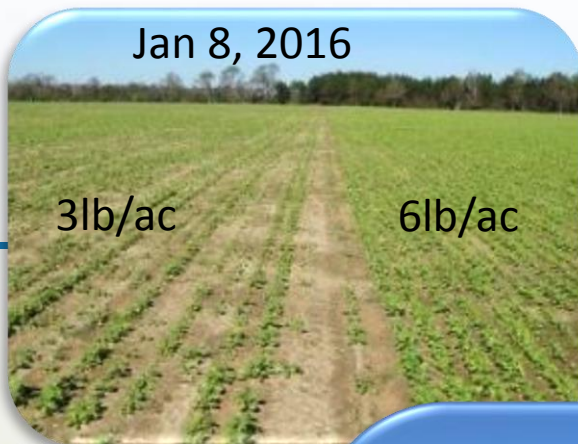
14" RS grain drill planter, 5 lb/ac



Broadcast 6 lb ac



Jan 8, 2016



**Lighter seeding rate plant canopy
caught up to high seeding rate.
Yield?**

Feb 10, 2016



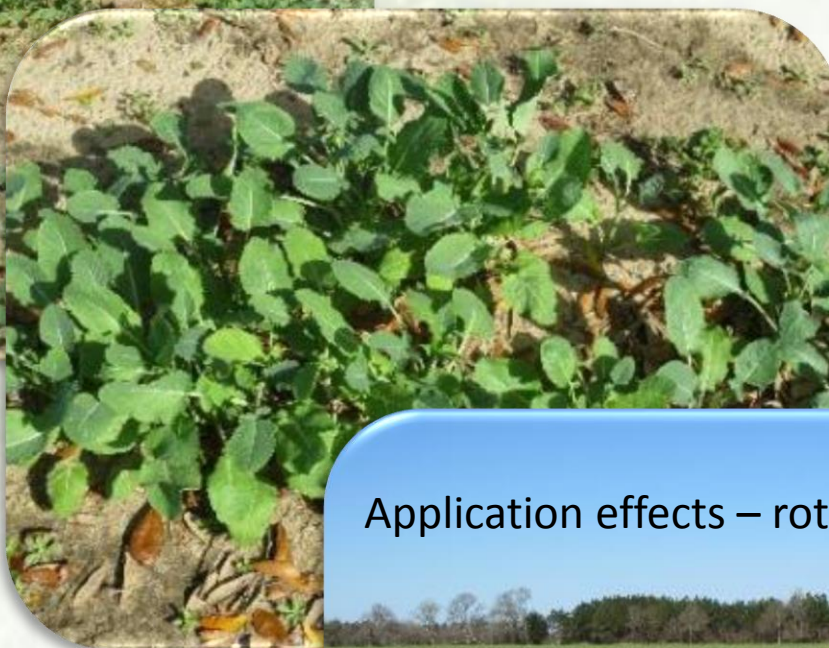
ALS Inhibitor – Cadre residue symptoms

Stunted growth - sporadic



Micro-nutrient and N def.

$(\text{NH}_4)_2 \text{SO}_4$
N 40lb/ac
S 25lb/ac



Application effects – rotation crop



- Deep tillage
- Timely fert apps
- Topical nutrient spray options



Nutrient Management

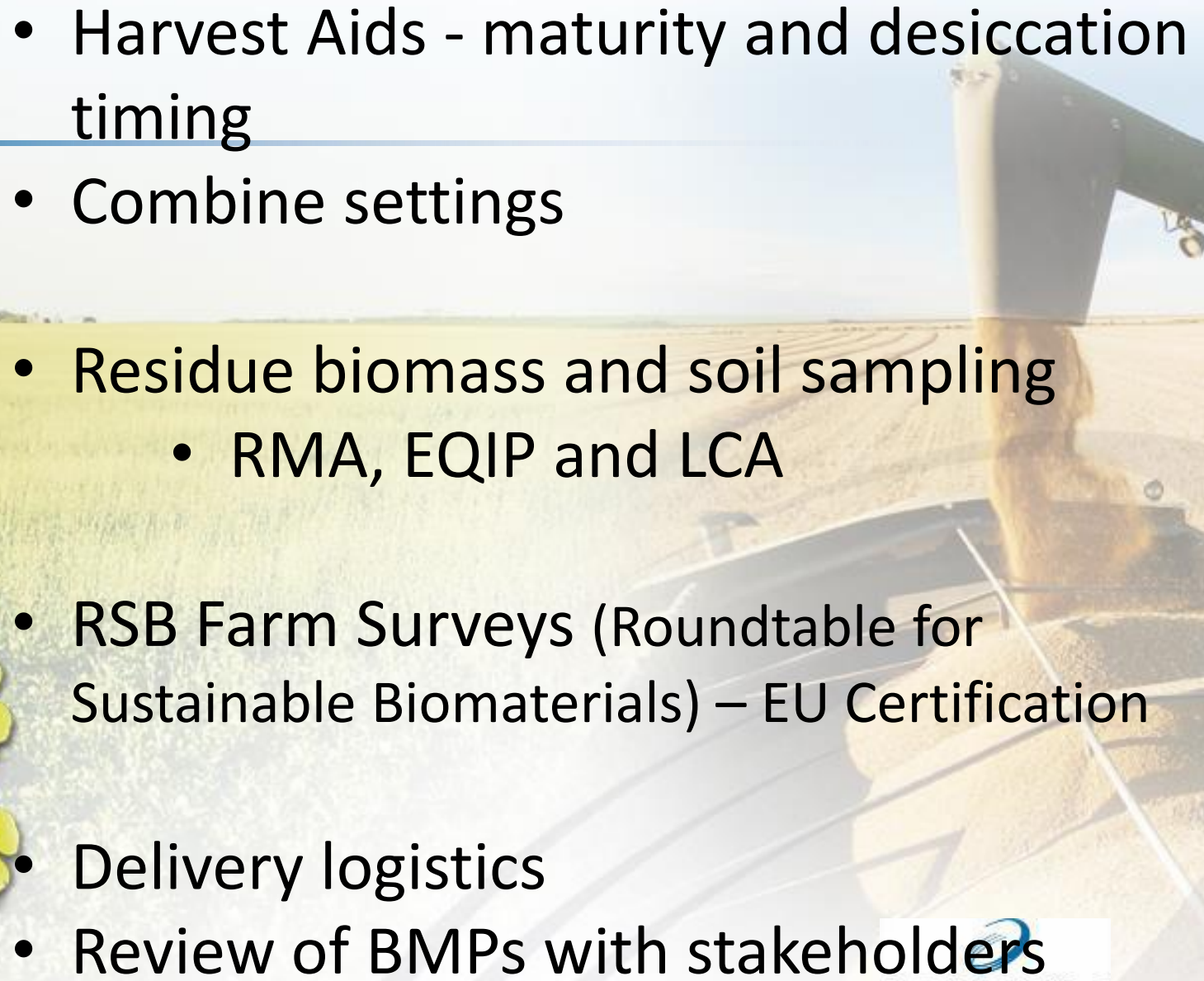
- Nitrogen, sulfur, micro nutrient
- Precision application



- Production guide data provides excellent baseline protocols
- Site management still is case by case and climate driven

Preparation for Harvest



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- Harvest Aids - maturity and desiccation timing
 - Combine settings
 - Residue biomass and soil sampling
 - RMA, EQIP and LCA
 - RSB Farm Surveys (Roundtable for Sustainable Biomaterials) – EU Certification
 - Delivery logistics
 - Review of BMPs with stakeholders

Production Support:

Agrisoma, Producers and Research Partnership – working to develop industry standards for *B. carinata*.

- Developing Regional Data Base for land variation and realistic yield expectations (RYE)
- Provide to RMA, EQIP and LCA commercial production data for insurance parameters, cover crop applications, and carbon cycle information
- Roundtable for Sustainable Biomass (RSB) EU surveys for bio renewable, farm acre approvals
- Continue applying validated results from NA and SA universities and public research partners
- Continue improving strategy on rotation logistics
- **Enter new and significantly improved varieties**

Counter Season Seed Increase: Chile

Varieties selected for

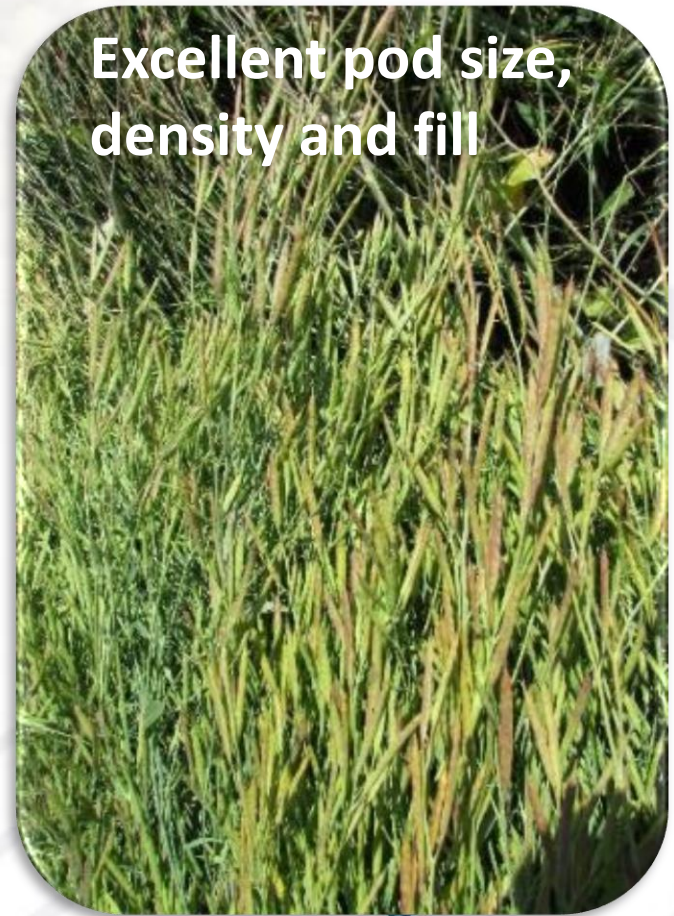
- SE USA
- Northern Plains US
- Southern Plains Canada
- South America - Uruguay



Breeder seed increase for SE, USA



Foundation seed increase for SA

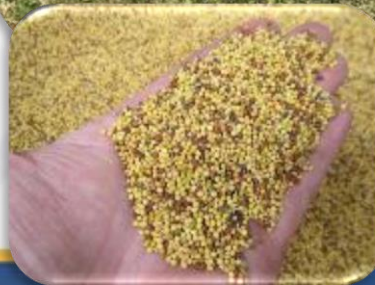


**Excellent pod size,
density and fill**

AGRISoma

Product Stewardship

Excellent Isolation +
Crop Management +
Ideal Environment +
Diligent harvest handling =
Quality Planting Seed




AGRISOMA



Acknowledgements:

Product Development Team

Christine Bliss, Ph.D
Regional Agronomist
Agrisoma, USA

Univ. of Florida *B. carinata* Team

Seed Distributors

Helena Chemical
Mayo Fertilizer
Escambia Grain



Thank you, and enjoy
the Carinata Summit

