# Contributions

Nov 2nd 2016

JOHN DEERE

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# Agenda

- Contribution Details
- Configuration and Activations
- Examples
- More Tools
- Reference



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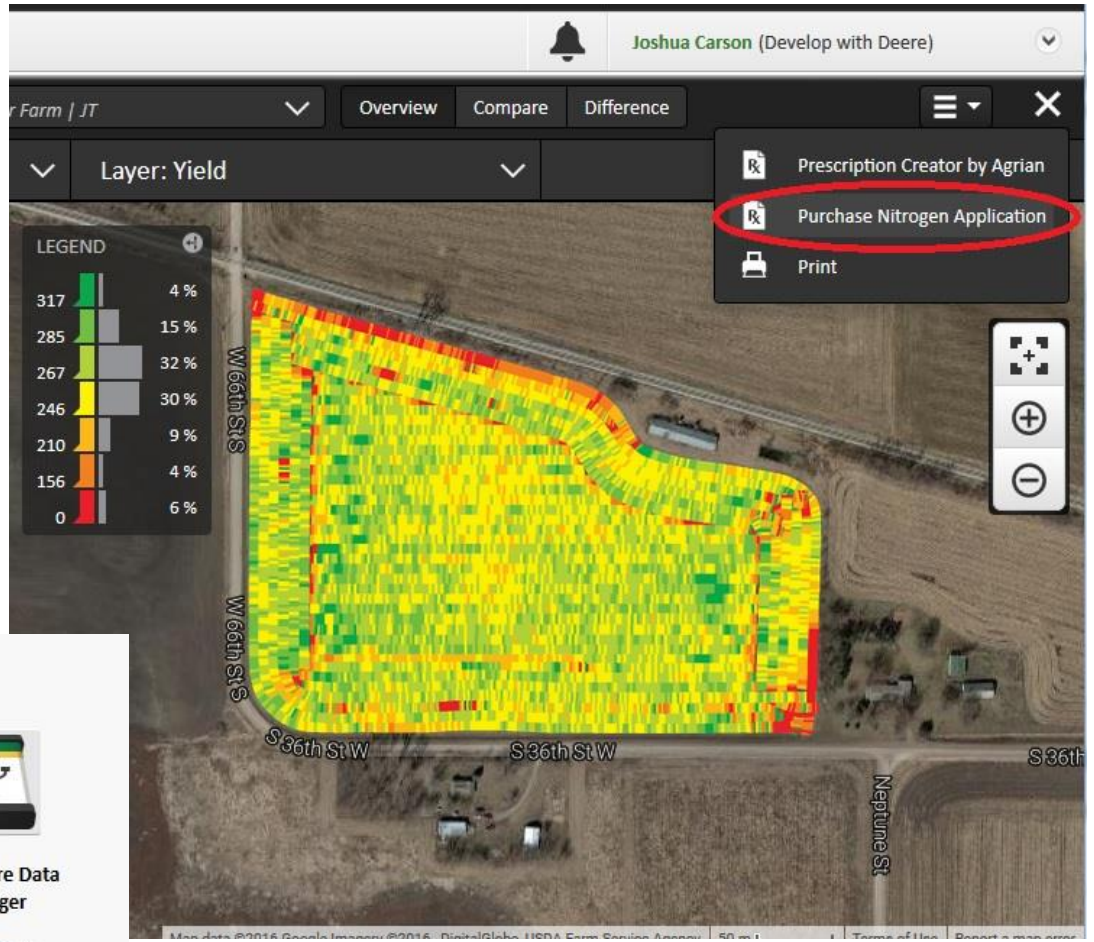
# Contribution Details

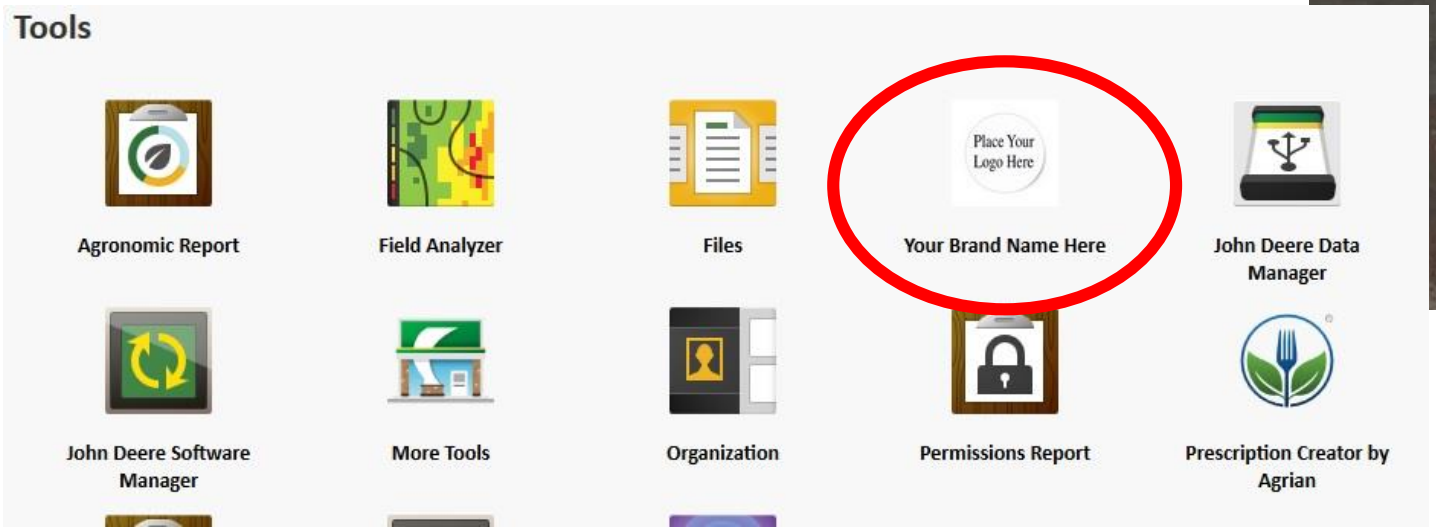
# John Deere Contributions

- Operations Center is the standard view into data for many farmers
- Your content in Operations Center
- Expand your product features and visibility

# Tool Contribution

**Link to your content from within Operations Center in multiple ways**



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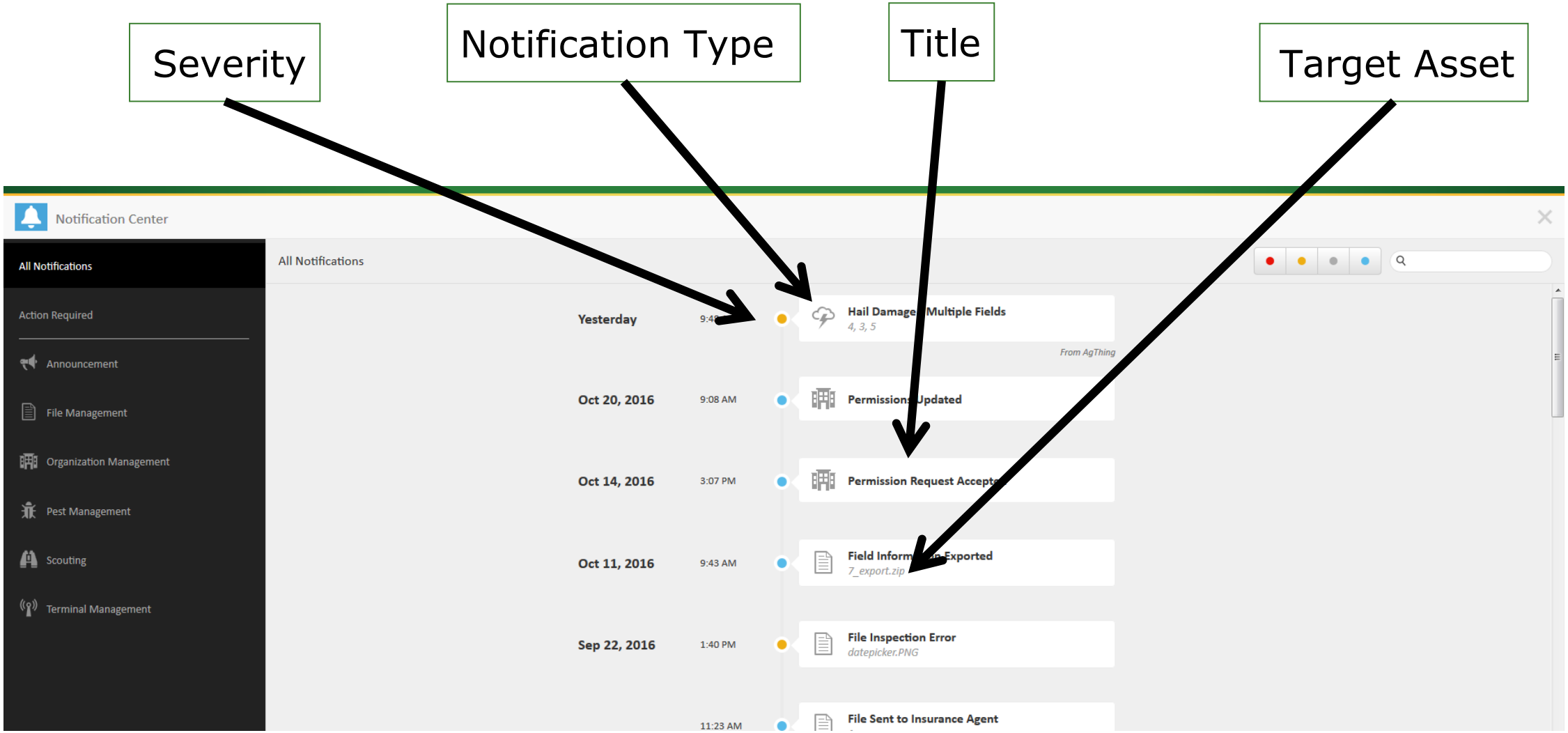
# Notifications - Experience



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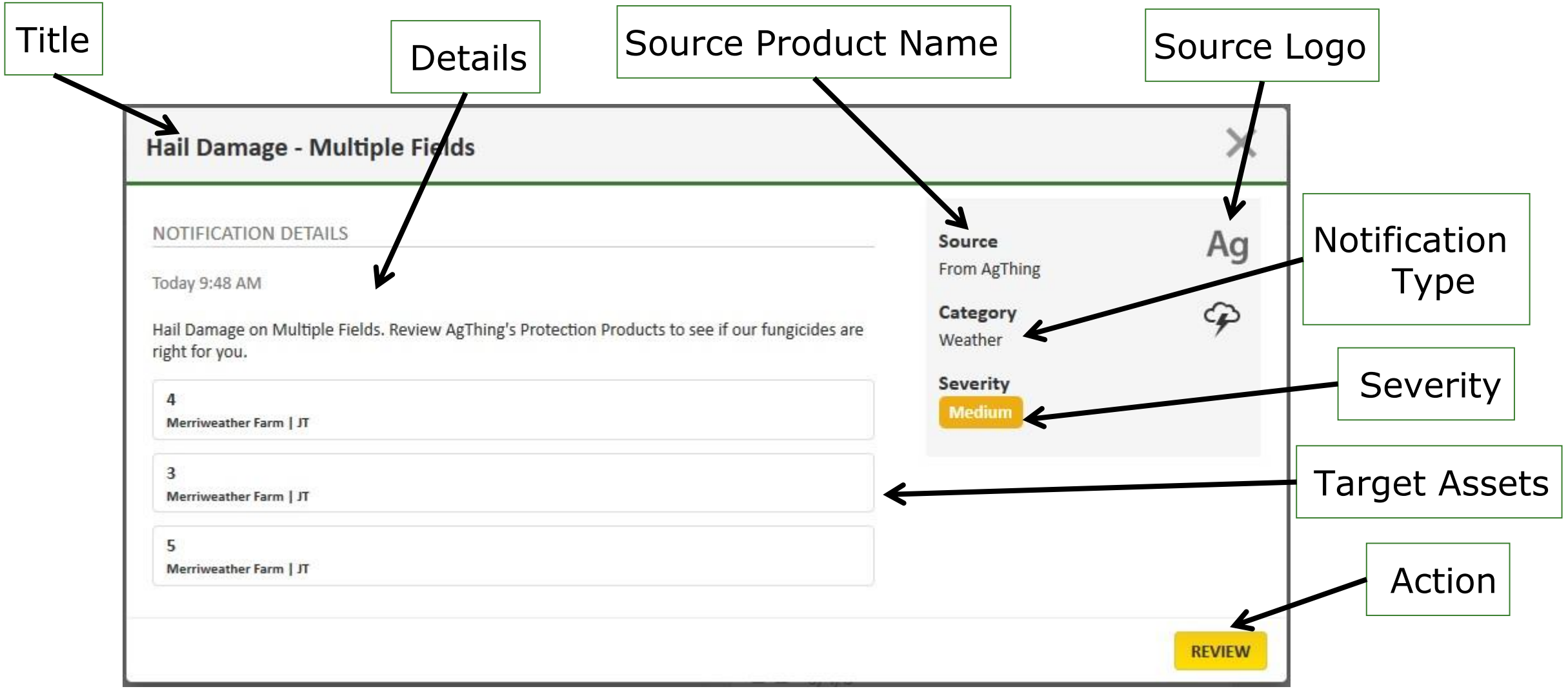
# Notification Specific View



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# Field Notes

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# Field Layers

Operation Selector Title

Date

Detail

Metadata

Name & Logo

Layer Selector

Legend

Image

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# Contribution – Configuration and Activation

# John Deere Configuration

When starting to Contribute, initial configuration must be done by John Deere

- Icon and Name shown on Operations Center for you contributions
- Tools link
- More Tools section
- Actions on Notifications
- Visibility flags for notifications

# John Deere Activation

- Activation is required to view all non-File contributions
- Activation is currently manual
- Send Organization ID to APIDevSupport@JohnDeere.com
- Next business day turn around time for activations (often less than one hour)
- APIs to activate customers yourself are being worked on

# Finding the right organization

Software for Farmers

- **GET /**
- **GET /users/@currentUser**
- **GET /users/{username}/organizations**
- If there is multiple, have some mechanism to pick an organization, such as UI

Software for retailers/dealers/those that support farmers

- **GET /**
- **GET /organizations**
- Some mechanism to pick an organization, such as UI or just picking all



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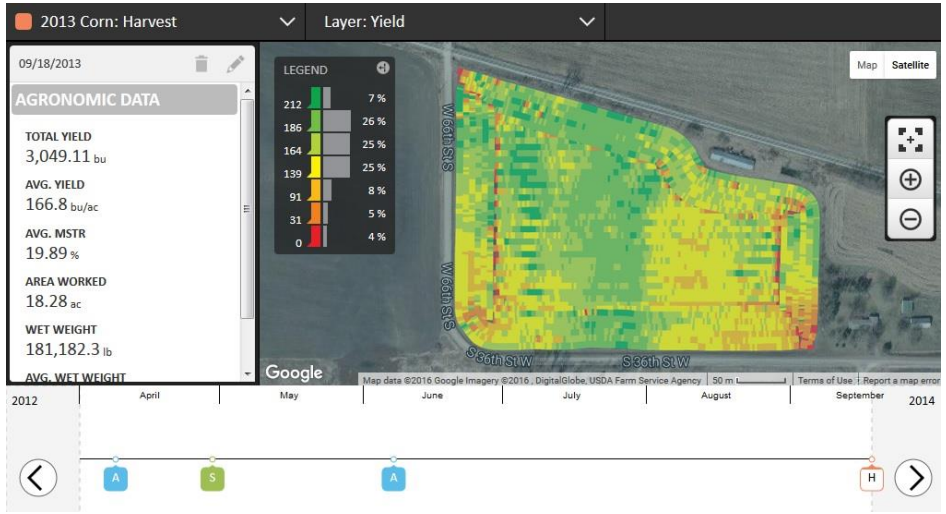
# Contribution Example – Potential Work Orders with Faster Ordering

# Fast Ordering Application – API Setup and Contribution Configuration

- Base Resources
- Field Details
- Field Operations
- Overall Contribution Product configured by John Deere with company Logo and Name
- Tool Contribution
  - From Field Analyzer
  - Prescription Icon
  - Link text set
  - Link URL set
- Field Layers, Definition ID from John Deere

# Data Setup –
# Getting The Grower's Data




- Get OAuth token from user
- **/users/{username}/organizations**
- **/organizations/{orgId}/fields?embed=boundaries**
- **/organizations/{orgId}/fields/{fieldId}/fieldOperations?embed=measurementTypes**
- **/fieldOps/{operationId} (Accept : application/zip)**
- Setup loops in your application to stay up to date on the customer's data



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# Adding Map Layers – Letting Customers See The Recommendations

- Process the field data, along with data like soil maps and weather, in your own agronomic models
- Create a PNG representing the recommendation(s)
- **POST /organizations/{orgId}/fields/{fieldId}/mapLayerSummaries** to do the top level of the recommendation. Store the returned summary ID.
- **POST /mapLayerSummaries/{summaryId}/mapLayers** for each specific recommendation. Store the returned layer ID.
- **POST /mapLayers/{layerId}/fileResources** to make a spot to put the PNG. Store the returned file resource ID.
- **PUT /fileResources/{id}** the actual PNG



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# Buying the service – Funnel customers to your order fulfillment process

- Link will appear on Operations Center's Field Analyzer for every field
- Link includes request param of the field selected
- Link goes to whatever URL you want along with request params (source=JohnDeere as an example)

# Buying the service –
# Your order fulfillment process supporting customers

- Best to make sure your system supports Deep Links from Operations Center so customers have the field pre-selected
- Your system would need to remember what was recommended per field, offer easy ways to the customer to buy those recommendations
- Your system would need to handle request params for fields you have not yet polled for (newly created fields)

**Image Source**
**http://jacaruso.com/everyone-likes-easy/**

# Contribution Example – Hail Damage and Ordering Product

# Hail Damage Application – API Setup and Contribution Configuration

- Base Resources
- Field Details
- Overall Contribution Product configured by John Deere with company Logo and Name
- Field Notes, Definition ID from John Deere
- Notification
  - Visible to All
  - Action - base URL to AgHail site, use metadata to handle request params

# Data Setup –
# Getting The Grower's Data

- Get OAuth token from user
- Get the current user's org with **/users/{username}/organizations**
- Get the organizations fields with **/organizations/{orgId}/fields?embed=boundaries**
- (Optional, with Field Operations) For each field, get enough field history with **/organizations/{orgId}/fields/{fieldId}/fieldOperations?embed=measurementTypes** and use that to know which crops were planted and when



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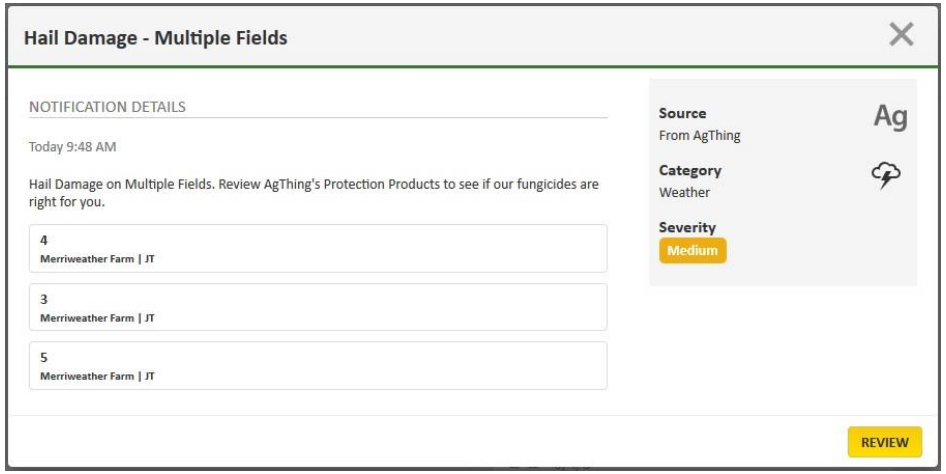
# Adding Notification – Alerting On Hail Damage




- Your system compares customer fields to hail damage via weather data feeds, build up queue for sending notifications
- POST **/organizations/{orgId}/notificationEvents** with each field hit as a target resource
- (Optional) include request params in link back to your system to reference this specific hail event via metadata
- (Optional) use geometry instead of targeted fields for the notification event



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# Adding Field Notes – Mark where the Hail Damage was

- POST **/organizations/{orgId}/fields/{fieldId}/fieldNoteSummary** about the hail event overall. Meta data to help add to the description.
- POST **/organizations/{orgId}/fields/{fieldId}/notes** for each spot of major hail damage. Meta data to help add to the description.
- (Optional) POST **/notes/{id}/fileResources** and then PUT **/fileResources/{id}** to add pictures, PDFs, or other binary content to any individual field note.



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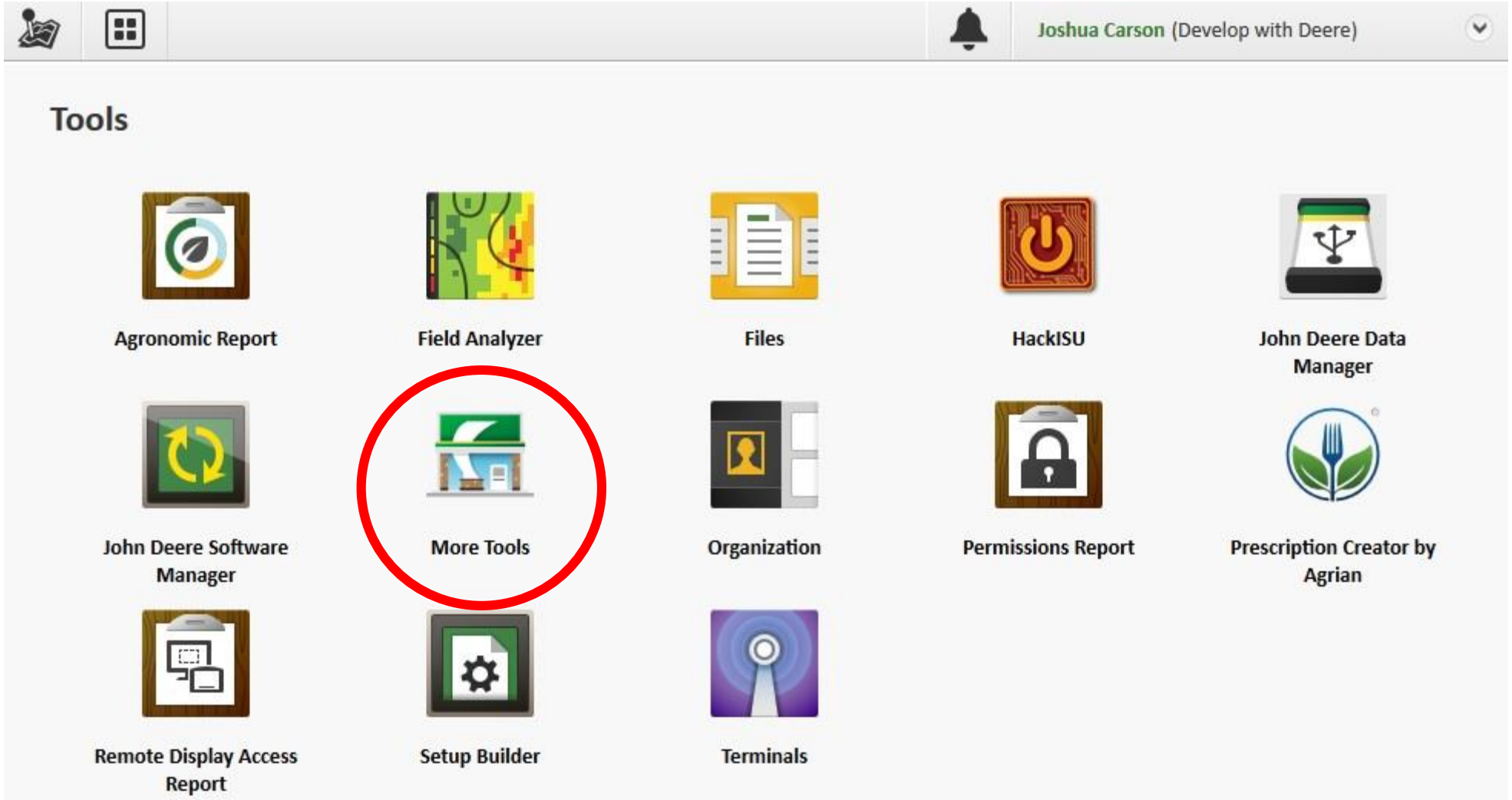
# Helping Customers Find Your Solution – More Tools

# Referral page for Add-On software tools



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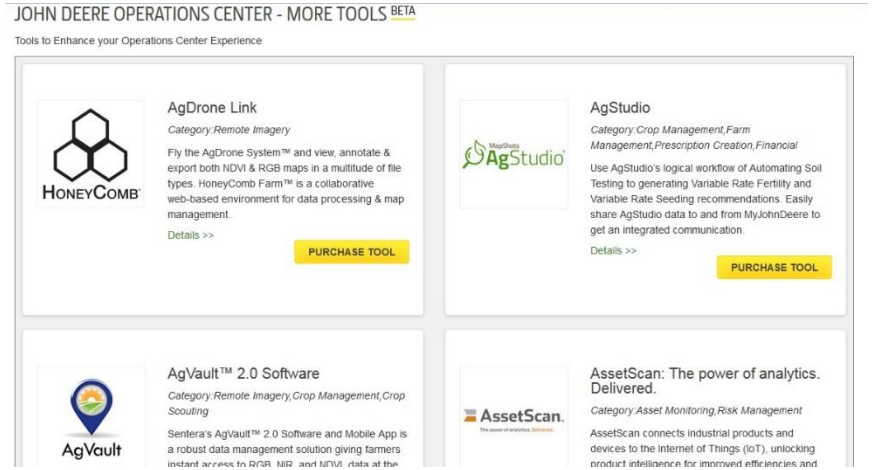
# More Tools




- Moretools.deere.com
- Increase presence and awareness of your application

# Reference – Contribution Options Contribution Configuration

# Notifications

**Options:**

- Type
- Severity
- Title
- Description Details
- Additional Details (for Action)
- Target Resource

**REQUIRED**:
Specific to each Product Definition ID -
Deere Needs to Provide a Unique **Contribution Definition ID**
Containing:

- **Product Name** & **Logo**
- **Action** (button, optional): **Button Text** and **Target URL**
- **Translations** (optional)
- **Visibility Flag**: Owner or All

# Field Notes

**Options:**

- Target Field (required)
- Description
- Title
- Additional Details
- Attachments

**REQUIRED**:
Specific to each Product Definition ID -
Deere Needs to Provide a Unique **Contribution Definition ID**
Containing:

- **Product Name** & **Logo**
- **Visibility Flag**: Owner or All



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# Field Layers

**Options:**

- Target Field (required)
- Description
- Summary Title
- Layer Title
- Layer Legend
- Created Date

**REQUIRED**:
Specific to each Product Definition ID -
Deere Needs to Provide a Unique **Contribution Definition ID**
Containing:

- **Product Name** & **Logo**

# Tool

**Options:**

- Tool page or Field Analyzer
- Target Reference include

**REQUIRED**:
Specific to each Product Definition ID -
Deere Needs to Provide a Unique **Contribution Definition ID**
Containing:

- **Product Name** & **Logo (75x by 75x)**
- **Operation Center Location** : Tool Page or Field Analyzer
- **Target URL**



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# More Tools

*Must have Production or Commercial software tied to the John Deere API platform

**Logo** 144 x 144 pixel image

**Name**

**Short Description** (200 characters)

**Long Description** (1000 characters) Must explain integration with the John Deere Operations Center and direct support contact number/email/website.

**Contact information:** Direct means to be contacted for support

**URL link** to website to purchase or acquire product.

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