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ScoutPro mobile field scouting applications for corn and soybean

Michael Koenig
ScoutPro

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Michael Koenig, president and CEO, ScoutPro

A new way to scout

ScoutPro, a startup business from the Agricultural Entrepreneurship Initiative at Iowa State University (ISU), developed corn and soybean scouting apps for use on tablets (such as iPad and Android-based devices) and Smartphones. ScoutPro was founded by Michael Koenig in 2011, while studying at Iowa State University. Michael, who grew up on a farm in south central Iowa and had spent summers working as a crop scout, knew there had to be a better and more accurate method for crop scouting. The goal of this app is to help farmers and agribusinesses make better-informed decisions concerning pest (weeds, insects and diseases) control. The apps increase access to information and provide helpful tools for pest identification and record keeping. Additional ScoutPro apps are planned for other crops. Features of the apps include:

- Ease of access and simple to use
- An identification process that helps users narrow down a pest by identifying attributes
- Photos of identified pests along with pest's background, life cycle, and threshold information
- The ability to generate field specific scouting reports through provided data entry fields including staging of pests, weather, plant population, stand count, pest pressure, etc.
- User uploaded images to scouting report for better record keeping
- Customizable data fields allowing users to add comments and/or directives for the scouted field
- Field mapping capabilities to allow cellular data enabled users to map fields via GPS coordinates for increased accuracy in reporting
- Identified pests are automatically recorded on a field map via GPS coordinates (for cellular data enabled users) to help identify concentrated problem areas needing immediate attention
- Scouting reports can be saved, stored on the ScoutPro hosted, user specific website and/or emailed to be shared or archived for reference in future crop years

These apps provide benefits for corn and soybean farmers and agribusiness, including:

- User assistance when working to identify field pests or disorders, helping to ensure field scouting and treatment recommendation accuracy
- The ability to keep accurate, field specific scouting reports throughout the growing season
- A mapping system that automatically records GPS coordinates, allowing geo-reference specific pest "hot spots" in fields, leading to better spraying efficiencies
- Decreased communication lag by allowing users to input and upload easy to read information and then allowing them to share the information instantly
- Archived data provides users with accessible information to make better information crop input and management decisions for upcoming seasons

Partnership with Iowa State University Extension and Outreach

Recent extension publications from Iowa State University such as the Corn Field Guide, Soybean Field Guide, Weed Identification Field Guide, and others, were useful print tools for the field, but the information was not available as an app. Iowa State University Extension and Outreach partnered with ScoutPro in the development of the scouting apps, which are based on these ISU field guides and diseases publications, by supplying the information for the apps and helping to review and guide the development process.

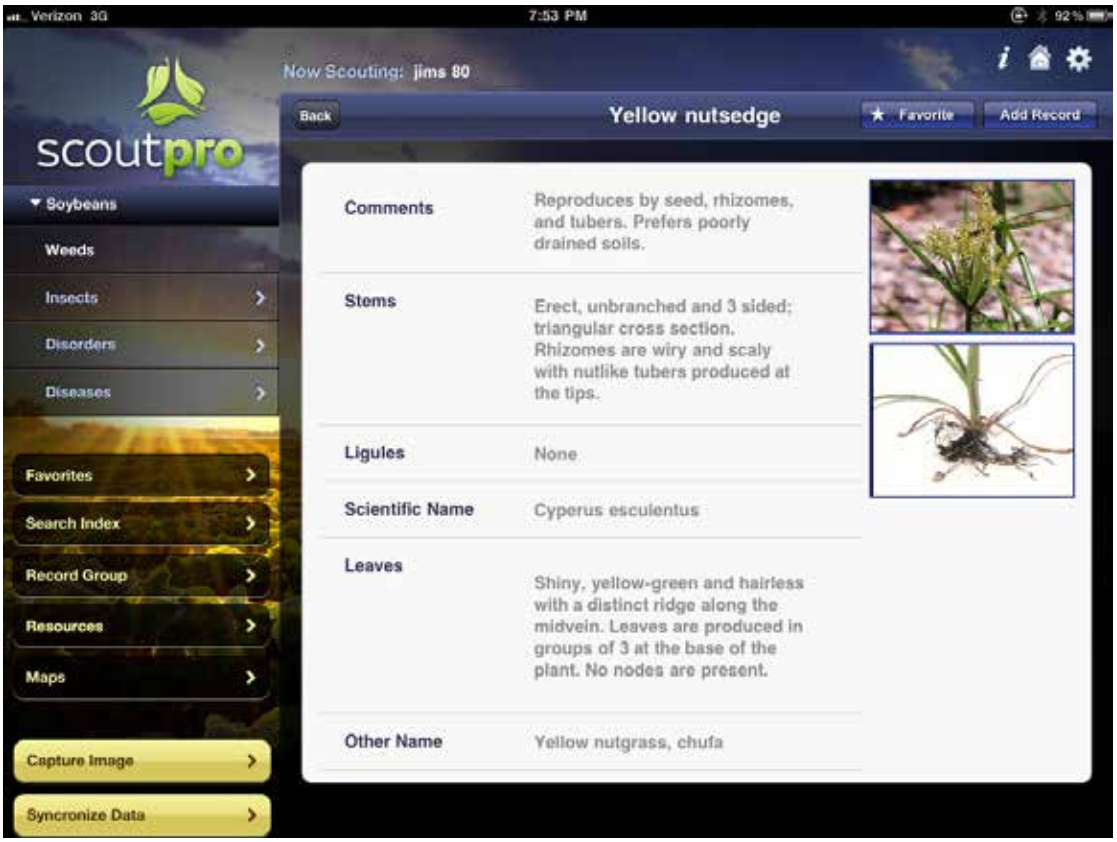
First Year Analytics

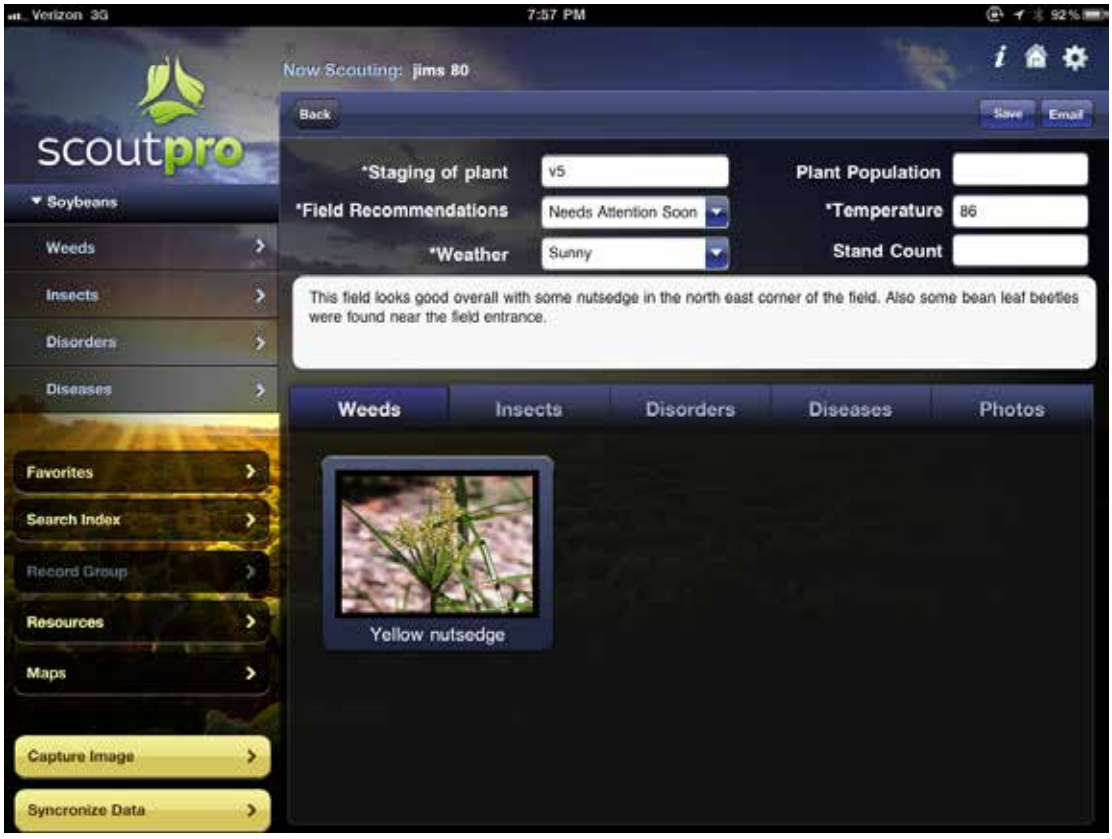
Analytics of the ScoutPro apps for 2012 are as follow (information from both Soybean and Corn apps unless specified):

- The top five most common weeds identified in fields this season were velvetleaf, giant ragweed, giant foxtail, common waterhemp, and common lambsquarter
- The top diseases identified in soybeans were Septoria brown spot, bacterial blight, alfalfa mosaic, bacterial pustule, brown stem rot, charcoal rot
- The top diseases identified in corn were common rust, common smut, gray leaf Spot, and Anthracnose leaf spot
- The top five insects reported in soybeans were Japanese beetle, grasshopper, two spotted spider mite, bean leaf beetle, and imported longhorn weevil
- The top five insects in corn were Japanese beetle, corn rootworm, seven-spotted lady beetle, stalk borer, and grasshopper

Conclusion

ScoutPro continues to look for ways to better serve the agricultural industry and farmers who are interested in scouting and, more importantly, basing future management decision off of this scouting information. ScoutPro's apps are designed to make scouting easier and more convenient to keep records of the scouting activities. We welcome constructive feedback to make these apps even better.


Verizon 3G
7:53 PM
92%
scoutpro
Now Scouting: jims 80
Back
Yellow nutsedge
Favorite
Add Record
Soybeans
Weeds
Insects
Disorders
Diseases
Favorites
Search Index
Record Group
Resources
Maps
Capture Image
Syncronize Data
Comments
Reproduces by seed, rhizomes, and tubers. Prefers poorly drained soils.
Stems
Erect, unbranched and 3 sided; triangular cross section. Rhizomes are wiry and scaly with nutlike tubers produced at the tips.
Ligules
None
Scientific Name
Cyperus esculentus
Leaves
Shiny, yellow-green and hairless with a distinct ridge along the midvein. Leaves are produced in groups of 3 at the base of the plant. No nodes are present.
Other Name
Yellow nutgrass, chufa


Verizon 3G
7:57 PM
92%
scoutpro
Now Scouting: jims 80
Back
Save
Email
Soybeans
Weeds
Insects
Disorders
Diseases
Favorites
Search Index
Record Group
Resources
Maps
Capture Image
Syncronize Data
*Staging of plant
v5
*Field Recommendations
Needs Attention Soon
*Weather
Sunny
Plant Population
*Temperature
86
Stand Count
This field looks good overall with some nutsedge in the north east corner of the field. Also some bean leaf beetles were found near the field entrance.
Weeds
Insects
Disorders
Diseases
Photos
Yellow nutsedge


Verizon 3G
7:58 PM
91 %
Back
Clear
Save
Drag the Pin to edit the Map.