Issue 549

K-STATE Research and Extension

Extension Agronomy

eUpdate

02/08/2016

These e-Updates are a regular weekly item from K-State Extension Agronomy and Steve Watson, Agronomy e-Update Editor. All of the Research and Extension faculty in Agronomy will be involved as sources from time to time. If you have any questions or suggestions for topics you'd like to have us address in this weekly update, contact Steve Watson, 785-532-7105 swatson@ksu.edu, Jim Shroyer, Crop Production Specialist 785-532-0397 jshroyer@ksu.edu, or Curtis Thompson, Extension Agronomy State Leader and Weed Management Specialist 785-532-3444 cthompso@ksu.edu.

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1. Agricultural Mobile Apps: A review and update of ID apps

In recent years, several institutions have developed mobile applications (or "apps") for tablets and smartphones with the goal of providing a service to all end users. The agricultural sector has taken a similar path, producing new apps for mobile devices (so called "Ag-Apps") for agricultural consultants and producers with educational materials and support tools. There is an increasing interest in these "Ag-Apps" and the use of new technologies for increasing the efficiency in communicating and decision-making.

This summary provides a review and update of the current status of Ag-Apps. To check the 2014-15 summary article see: 2014-15 Ag-Apps Summary

Note: Most of the apps presented in this series of articles are free to download. Before paying for any app, please check online reviews or consult with any specialist working with that app or someone familiar with the app in order to understand its potential benefits and how it can assist you in your daily farming operation. As a general rule, an app needs to be "easy to use" and "intuitive." Most apps do not come with a user guide or a manual. Take all these points into consideration before downloading and using apps.

Ag-Apps Classification:

For this series of articles, Ag-Apps are grouped into the following ten classifications with the goal of dividing apps by their different uses and purposes:

- **ID Apps**: For identification purposes (weeds, insects, diseases, and nutrients)
- **CALC Apps**: For calculating purposes (nutrient removal calculations, tank mixes, volume to spray, etc.)
- **SCOUT Apps**: For scouting purposes or for geo-positioning (soil sampling, recording notes, soil types, etc.).
- **ECON Apps**: For checking grain prices, market evolutions, fertilizer price trends, news and finances.
- **GUIDE Apps**: For diagnosing crop production issues in the field, primarily related to field guides (crop management: insect, disease, weed, and more).
- **LIVESTOCK Apps**: Apps related to the animal side, nutrition, health, and information on markets.
- **IRRIGATION Apps**: Apps related to field crop irrigation and water application.
- **MACHINERY Apps**: Apps for associated with agricultural equipment preparation, inventory, providing information of the machine.
- **GAG Apps**: GAG (general Ag-Apps) for general use, weather-related, for meetings, for reading magazines, among several other Apps' properties.
- **NON-AG Apps**: For general use from e-readers to calculators, email, calendar, picture editing, and more.

This article features "ID Apps." Each of the next nine issues of the eUpdate will feature a different group of Ag-Apps.

In summary, there are several different Ag-Apps with diverse applications and unique features that can assist key stakeholders in the farming decision making process.

1. Identification Apps (ID Apps)

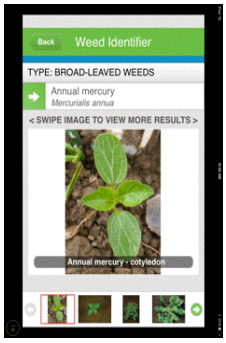
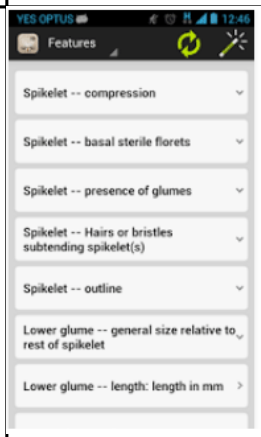
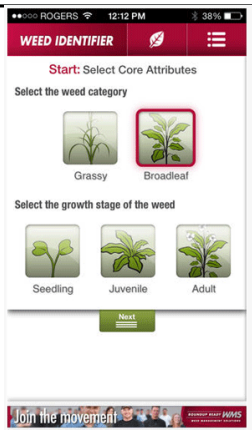
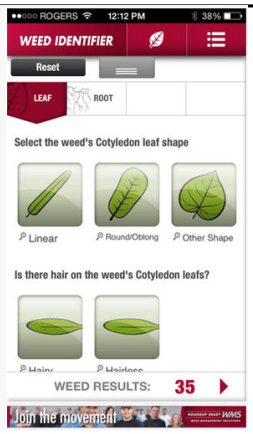
These Apps are primarily utilized for identification purposes. This category can be sub-divided in different topics:

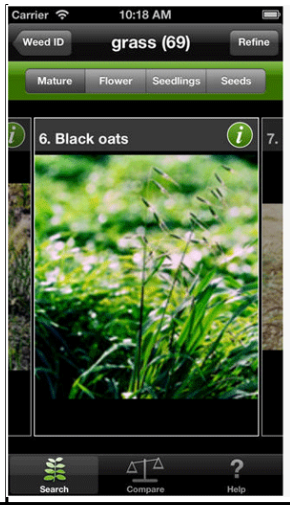
A) Weeds, B) Insects, C) Diseases, and D) Nutrients

A) Weeds ID

These apps can help identify a weed, or search for weeds by name, region, or appearance.

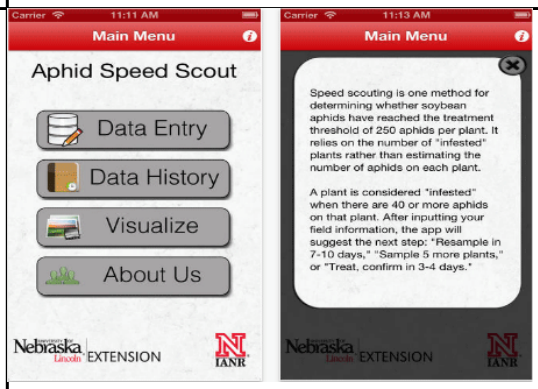
MOBILE AGRICULTURAL APPS – REVIEW from KSUCROPS ©Kansas State University			
ID Apps - Weeds			
Name of App and Source	Picture	Brief description and cost	D
ID Weeds  University of Missouri Extension		Search, check a list or identify weeds. FREE	iO A
Ag Weed ID  Farm Progress		Weed identification for corn, cotton, rice, sorghum, soybeans, and wheat (75 weeds). FREE	iO Ar

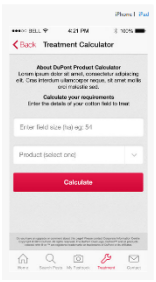
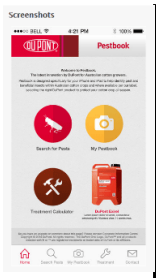
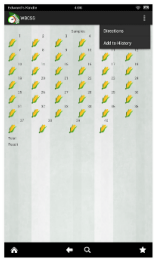
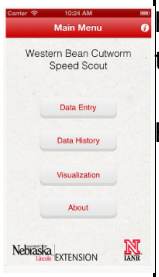
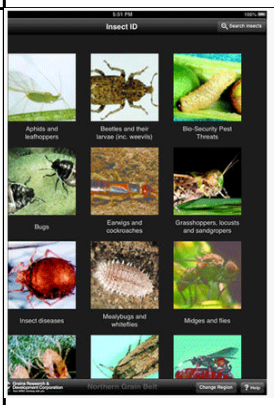
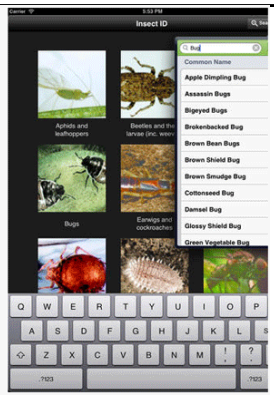
	  	Identify weeds by name, by appearance, and by region. FREE
Weed Alert  PBI/Gordon Corporation			
Federal Noxious Weeds Key  U. S. Department of Agriculture	 	This app is a useful resource for seed professionals and anyone with an interest in, or a need to know about, noxious weeds. FREE
Weed ID  Monsanto Company	 	The Weed ID app is a tool that allows you to identify and map weed pressures through a dynamic selection criteria process. FREE
Weed ID: The Ute Guide			This app is designed to assist growers in the identification of

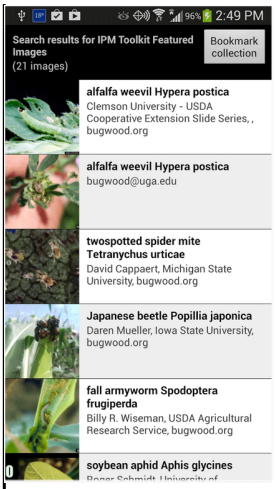
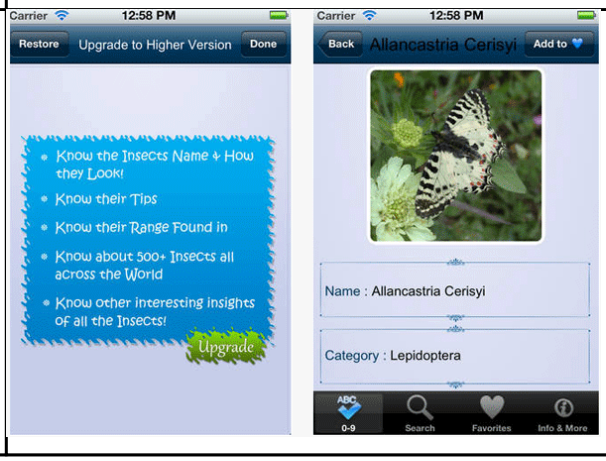
Grains Research and Development Corporation		common weeds (Australia). Pictures at varying growth stages are presented on this app. FREE	A

B) Insects ID

These apps can help identify insects (pests) and beneficials, quantify insect damage, and determine insect threshold.

MOBILE AGRICULTURAL APPS – REVIEW from KSUCROPS ©Kansas State University			
ID Apps - Insects			
Name of App and Source	Picture	Brief description and cost	Downloa
Aphid Speed Scout University of Nebraska-Lincoln		Quick and easy approach to measure aphids. FREE	iOS Android
Dupont Pestbook		Designed to simplify identification of pests and beneficial insects in your fields. FREE	iOS

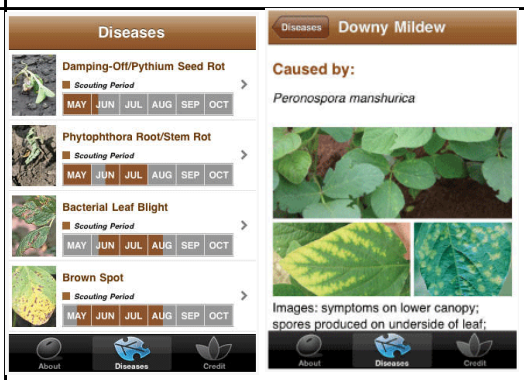
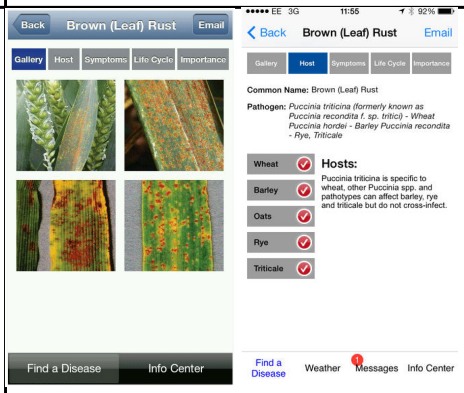
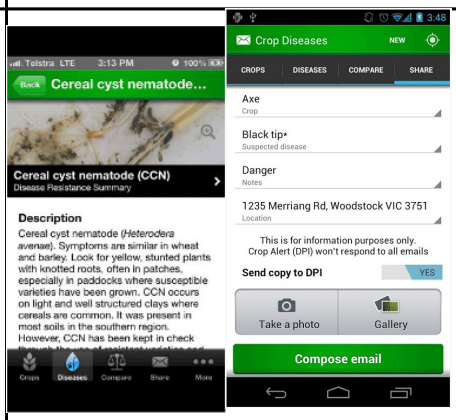
DuPont	 		
Western Bean Cutworm (WBC) Speed Scout  University of Nebraska-Lincoln	 	Speed scouting is a new method for determining whether WBC populations have reached the action threshold for treatment. FREE	iOS Android
Insect ID  Grains Research and Development Corporation	 	Reference guide for insect pests commonly affecting broadleaf crops. Photos are provided, and each insect is described in detail. FREE	iOS Android
IPM Toolkit		Read news articles, view videos, download publications, and access pictures to aid you in adapting IPM practices. FREE	iOS Android

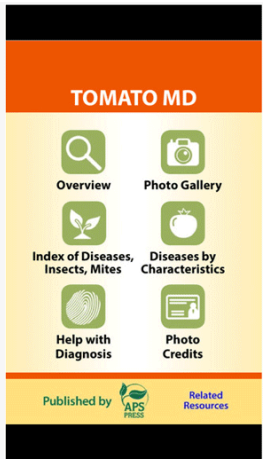
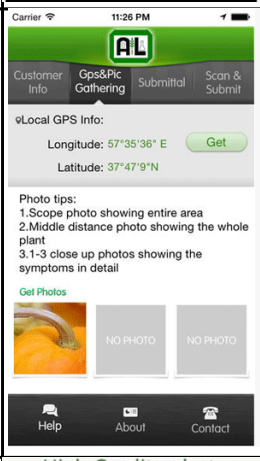
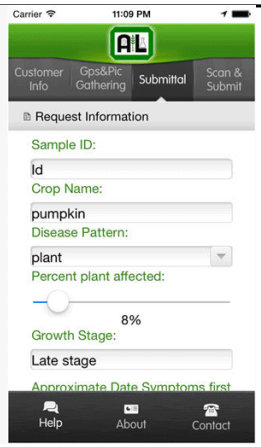
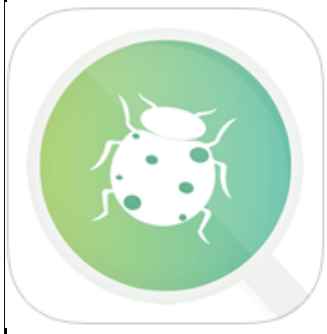
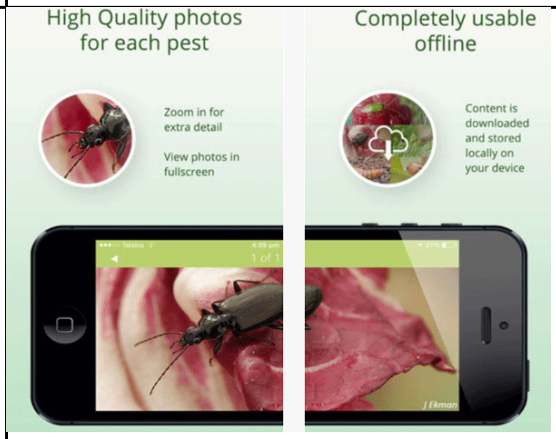
 University of Wisconsin Nutrient and Pest Management Program	 			
Atlas: Insects of World  ASV Apps		Pocket handbook for anyone interested in learning about insects. It has pictures of most common insects on Earth. FREE	iOS

C) Diseases ID

These apps can help identify a disease, or search for disease by name or picture.

ID Apps - Diseases

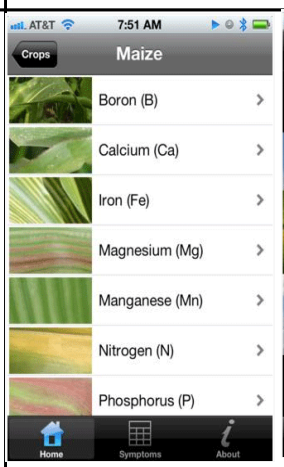
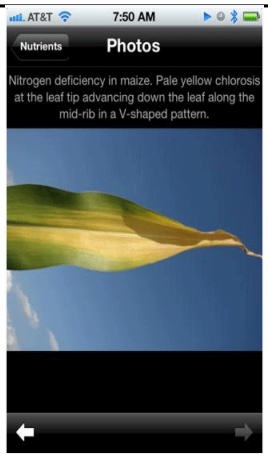
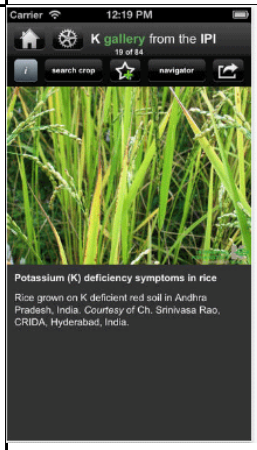
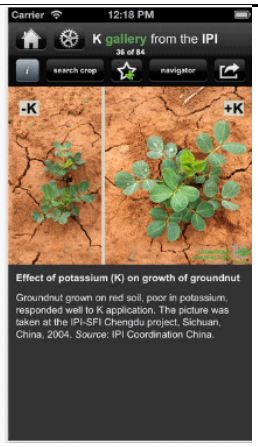
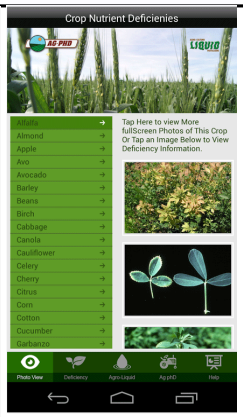
Name of App and Source	Picture	Brief description and cost	D
Soybean Diseases of SD South Dakota State University		This iPhone app was assembled to provide growers with easy-to-use diagnostic information for a number of major soybean diseases. FREE	iO
Cereal Disease ID BASF		Cereal Disease ID app gives access to information about common diseases of cereal crops. FREE	iO Ar
DEPI Crop Disease DEPI Crop Disease		The DEPI Crop Disease app provides quick access to current disease resistance ratings and an extensive disease image library. FREE	iO Ar
Plant Health from APS		APS reference apps for plant diseases found on turfgrass and tomatoes. Mobile tools featuring photos, ID keys, and management recommendations. FREE	iO Ar

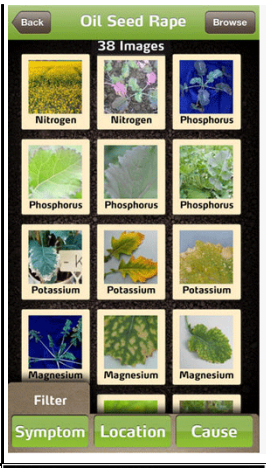
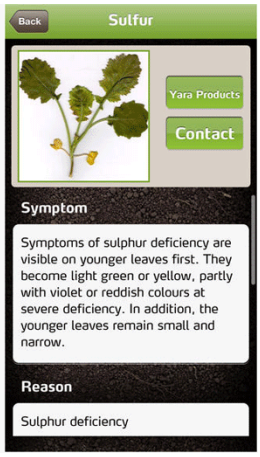
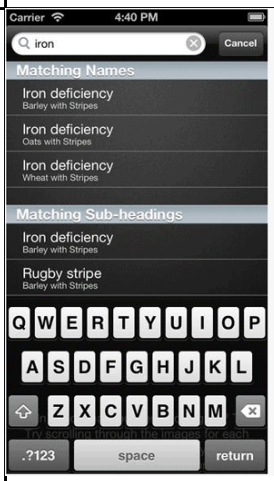
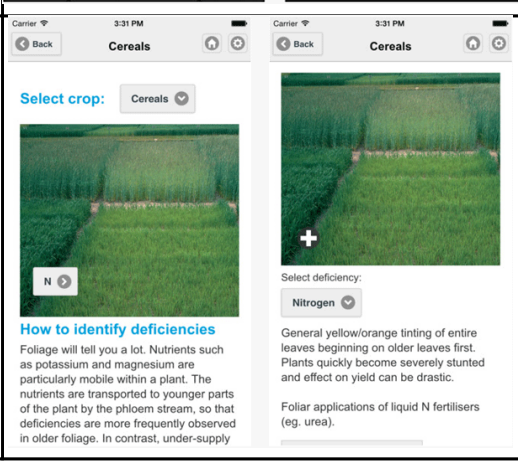
American Phytopathological Society	 		
A&L Plant Disease Diagnosis  A&L Canada Laboratories, Inc.	 	This app was designed to give you the ability to diagnose disease in your crops by providing some pictures and basic information. FREE	iO A
Veg Pest ID  Break Through Applications Pty Ltd		This app helps farmers and agricultural professionals identify pests (insects, diseases, and disorders) on vegetable crops. FREE	iO A

D) Nutrients ID

These Apps can help identify a nutrient deficiency, or search for a deficiency by name, picture, and field crop.

ID Apps – Nutrient Deficiencies

Name of App and Source	Picture	Brief description and cost	D
Crop Nutrient Deficiency Photo Library International Plant Nutrition Institute	   	A comprehensive collection of crop nutrient deficiency photos for 14 prominent crops. Text descriptions are also provided. FREE	iO Ar
Potassium Gallery International Potash Institute (IPI)	   	This app has quality pictures portraying potassium (K) responses to fertilizer applications and also depicting K deficiencies in different crops. FREE	iO Ar
Crop Nutrient Deficiencies AG-PHD	   	Users can search for deficiencies by nutrient type or browse photos of crops showing deficiency. FREE	iO Ar
Yara CheckIT	 	This app gives farmers a photo library to allow a simple and fast ID of possible nutrient deficiency. Then it gives further information on how the deficiency affects that crop. FREE	iO Ar

Yara International	 		
Winter cereal nutrition Grains Research and Development Corporation	 	This app is designed to help growers easily identify cereal nutritional disorders. It covers both nutrient deficiencies and toxicities. FREE	iO A
KALI-TOOLBOX K+S KALI GmbH		The K+S KALI GmbH app provides you with the most essential information regarding mineral fertilization (including pictures). FREE	iO A

Each of the next nine issues of the eUpdate will feature another classification of Ag-Apps from our KSUCROPS Crop Production team and the K-State Department of Agronomy!

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