CLEMSON UNIVERSITY

MyIPM Smartphone Series

Guido Schnabel, Clemson University

Why We Did This Project

Provide growers and agents with **relevant and up-to-date information** anytime, anywhere

Integrate disease diagnostics, spray guide info, fact sheet info, disease and resistance management recommendations

Simplify information with interactive tables, pictures, audio, links

Provide a **resource for the specialist, grower, and field crew** (correct planting, diagnostics)

Timeline

January	2012	Discussions, Planning, Funding
January	2013	Identification of suitable student programmer
January	2014	Release of Android,iOS MyIPM SouthEastern Disease app (**SED**); peach, strawberry)
September	2015	First workshop in Clemson (multiple Universities)
January	2016	Release of Android, iOS MyIPM (NorthEastern Disease app (**NED**); apple, pear, cherry, Cranberry; SouthEastern Pest app (**SEP**); peach, strawberry, blueberry
September	2016	Second workshop in Clemson
January	2017	Funding from S-IPM Center, NASGA, SRSFC (merge all 3 apps, add more information, more)

3500 total downloads as of today (February 1, 2017)

The Original MyIPM Creators

Guido Schnabel
Plant Pathologist

Roy Pargas
Computer Science

Greg Edison
Programmer

Mengjun Hu
Scientist

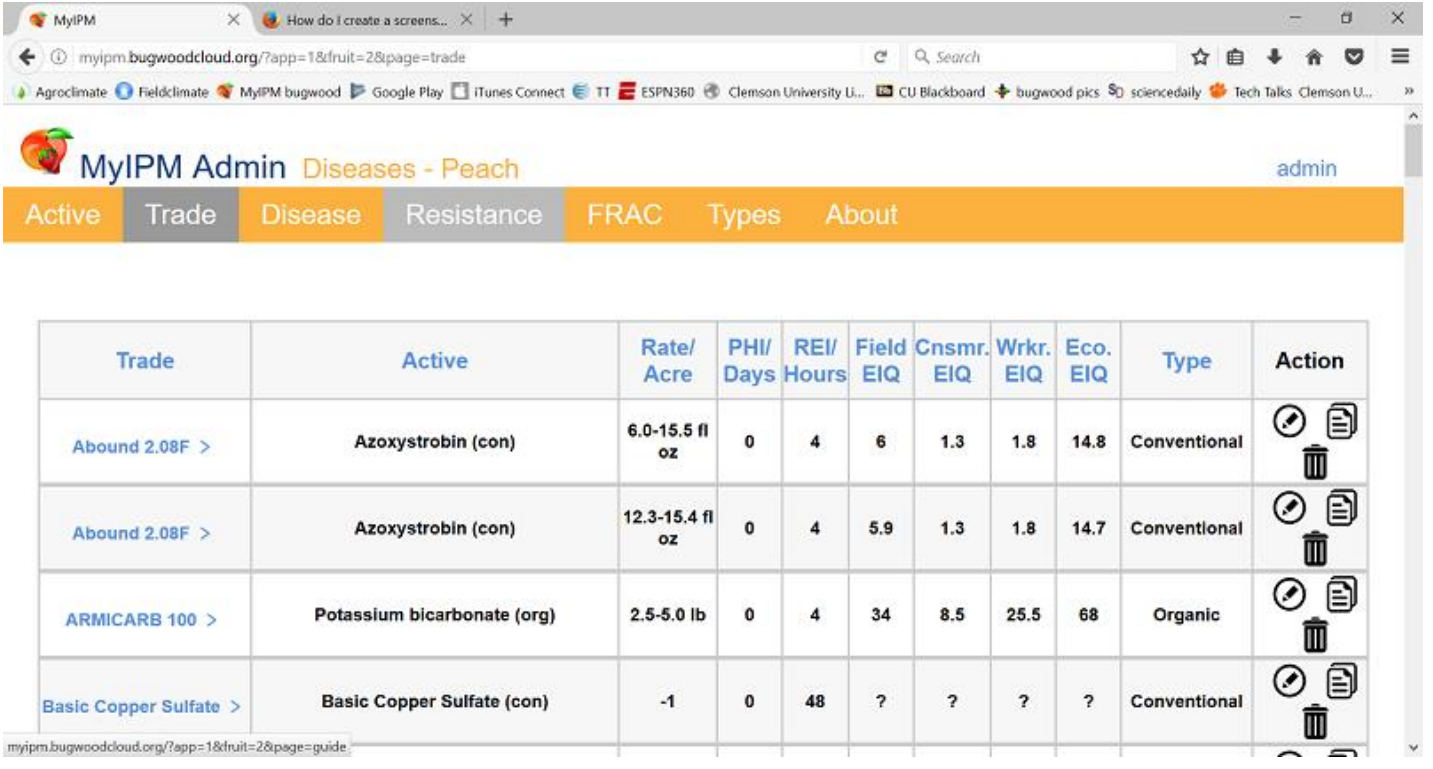
Funding initially provided by
-the Schnabel slush fund
-USDA Southern Region IPM Program
-Southeastern Small Fruit Consortium

Continued funding provided by
-S-IPM Center
-NASGA
-SRSFC

Active Contributors

	Clemson	Cornell	PSU	UMASS	NCSU	UGA	USDA / Rutgers/ UFL
Plant Pathology	Schnabel Hu	Cox *Gadoury*	Peter	Clements Rojas Cooley	Villani Cline Ritchie	Brannen	*Turechek* *Beckmann/* *Lalancette/* *Peres*
Entomology	P. Smith					Ahmad Little Blaauw	
Software, Technical, Design	Edison Dowling					LaForest \Souther n IPM Center	

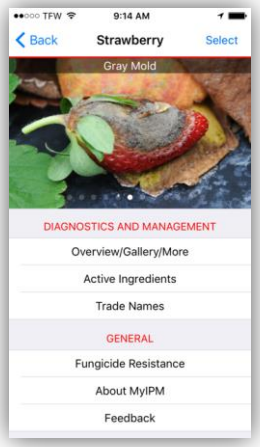
We Can Change Content And Push to Production ANY TIME- The Authoring Tool



Trade	Active	Rate/ Acre	PHI/ Days	REI/ Hours	Field EIQ	Cnsmr. EIQ	Wrkr. EIQ	Eco. EIQ	Type	Action
Abound 2.08F >	Azoxystrobin (con)	6.0-15.5 fl oz	0	4	6	1.3	1.8	14.8	Conventional	
Abound 2.08F >	Azoxystrobin (con)	12.3-15.4 fl oz	0	4	5.9	1.3	1.8	14.7	Conventional	
ARMICARB 100 >	Potassium bicarbonate (org)	2.5-5.0 lb	0	4	34	8.5	25.5	68	Organic	
Basic Copper Sulfate >	Basic Copper Sulfate (con)	-1	0	48	?	?	?	?	Conventional	

MyIPM
SMARTPHONE APPS

Southern IPM Center



MyIPM apps are available for Android and Apple phones and feature IPM information for fruit crops from regional specialists

A Smartphone App to Assist with Integrated Pest and Disease Management

- *Diagnostics* Made Easy with Picture Gallery
- *Interactive Tables* Featuring Active Ingredients, Trade Names, Efficacy, PHI, REI, Rates/Acre
- *Chemical, Biological, Cultural Control Options*
- *Pest and Pathogen Biology*
- *Audio from Specialists*
- *Resistance Management Tools*
- Maintained by *Leading Extension Specialists* of 6 Land-Grant Universities and the Southern Region IPM Center

Three current apps to choose from:

MyIPM-SED (Diseases of blueberry, strawberry and peach)

MyIPM-SEP (Pests of blueberry, strawberry and peach)

MyIPM-NED (Diseases of apple, pear, cherry, cranberry)

Download for free in Google Play or Apple Store. Use WiFi due to large file s

http://apps.bugwood.org/apps/myipmseries/

Planned Improvements

(Funding from S-IPM Center, NASGA, SRSFC)

-Merge all into one app, provide user the option to choose crops

-Add pests for apple, pear, cherry, and cranberries

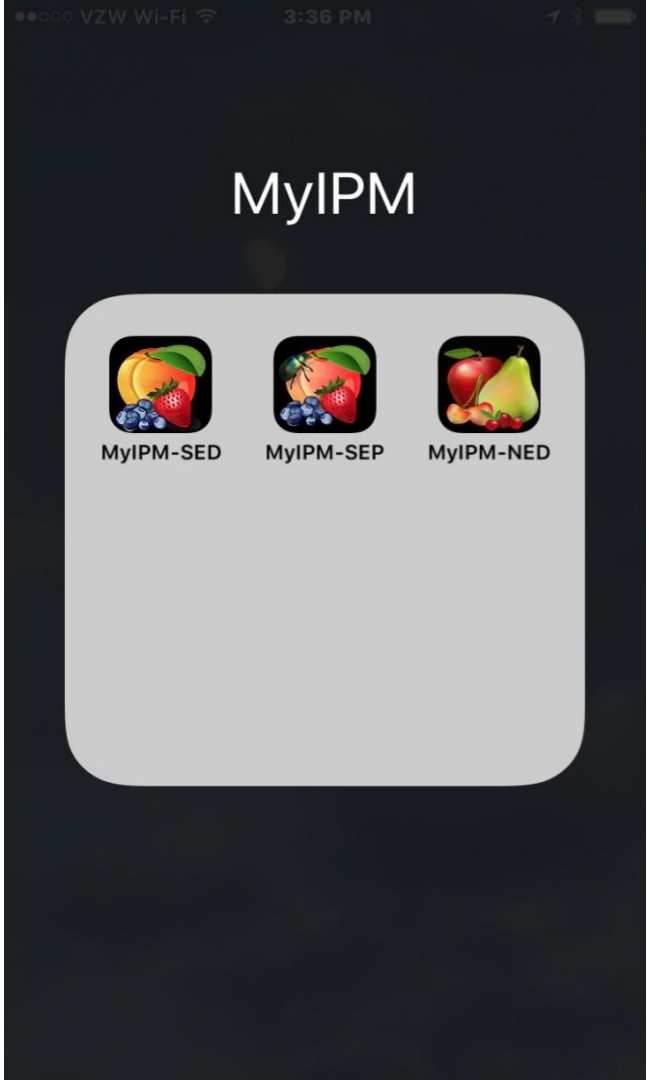
-Add resistance management information for each ai

-Add product compatibility information (SEARCH feature)

-add an optional poll function

-Meet on a regular basis to update and improve

Switch to Live Demonstration

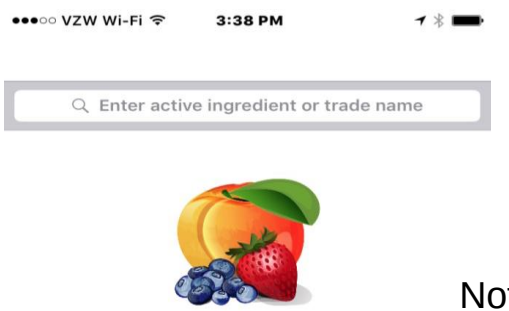


MyIPM-SED, which stands for SouthEasternDiseases

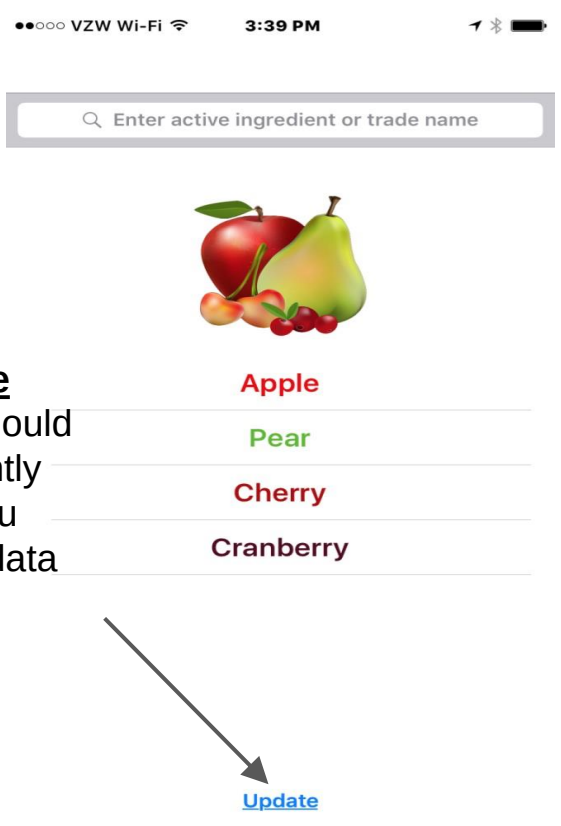
MyIPM-SEP, for SouthEasternPests

and **MyIPM-NED**, for NorthEasternDiseases

SouthEasternDiseases and **SouthEasternPests**



NorthEasternDiseases



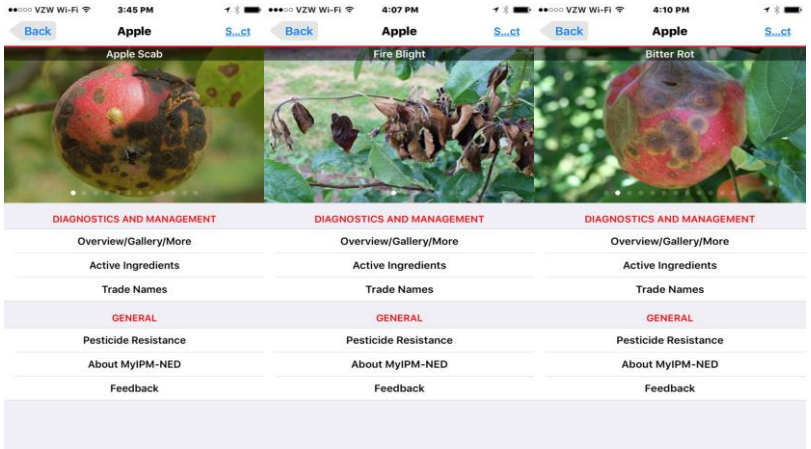
Note the **Update** button, which should be done frequently to make sure you have the latest data in the app!

Lets use **NorthEasternDisease / Apple** as a crop example

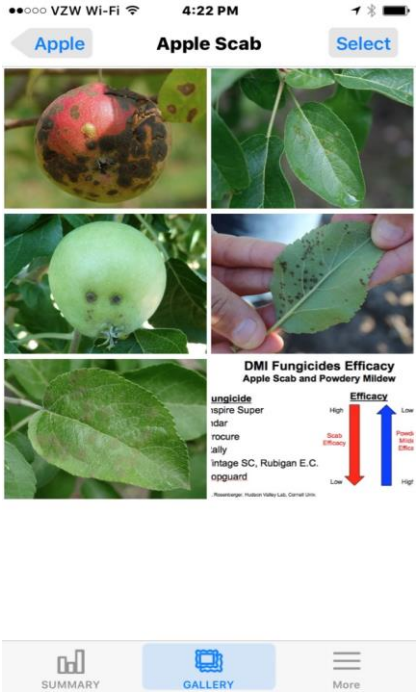
Scroll through the **Disease pictures** or us **SELECT** tab, settle on Apple Scab example

Choose **Overview/Gallery/More** to display basic biology and a bit of information on cultural control

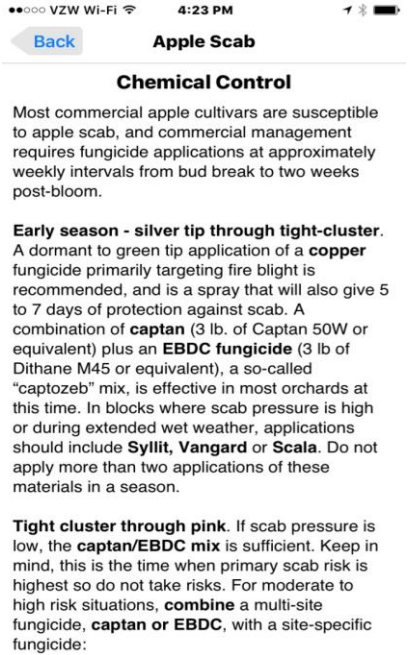
Play **Audio clip** from a University expert



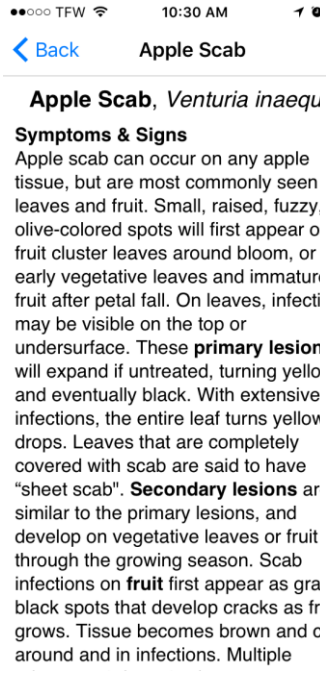
Choose **Gallery** and **zoom in** by pinching and spreading with thumb and index finger

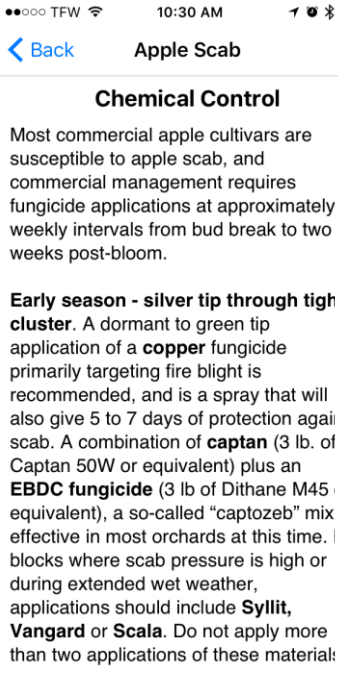


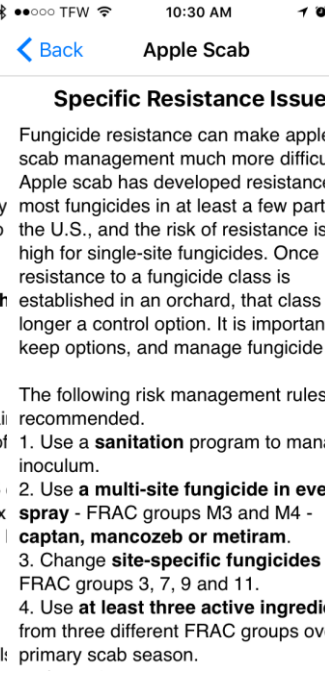
Choose **More** for in-depth information on Disease, and advice on Chemical Control, Pesticide Resistance Issues, and Non-Chemical Control options.

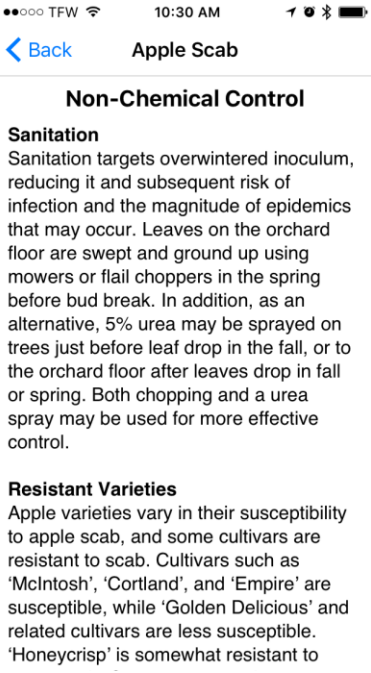


MORE section

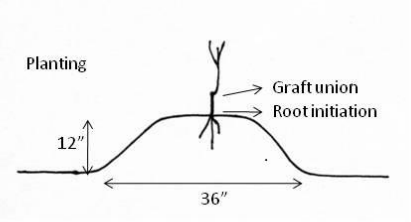


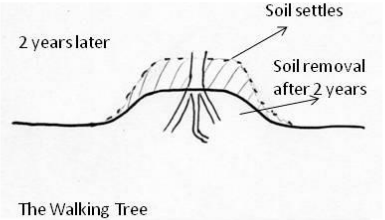


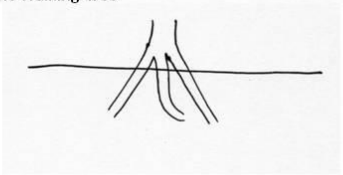


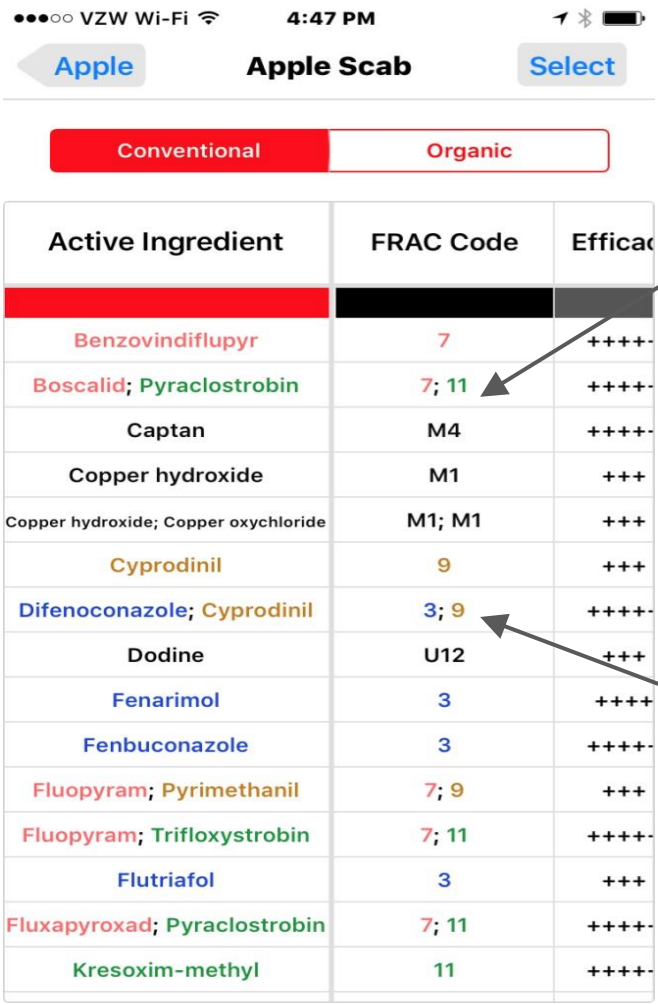


MORE section is supported by GALLERY pictures





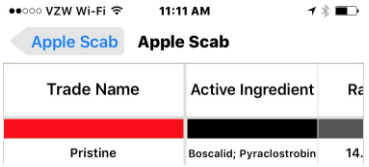


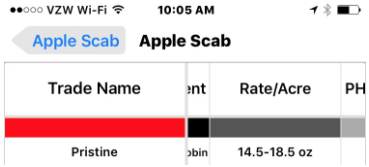


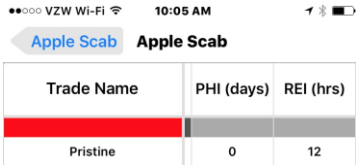
List **Active Ingredients** registered to control the Disease. **FRAC Codes** correspond to colors. Knowing what FRAC/color code you sprayed last will help you **choose a fungicide for your next spray with a different mode of action** for resistance management.

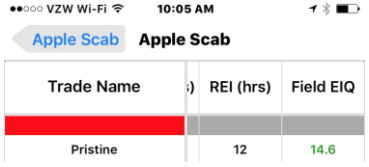
For example, if I used the Boscalid /Pyraclostrobin (7/11) combination in my last fungicide spray, I might choose a different fungicide combination for my next spray. For example, the Difenconazole /Cyprodinil, 3/9, blue/brown combination. Or Captan, M4 black.

Not sure what the Boscalid/Pyraclostrobin combination **Trade Name** is? Simply tap on it to display **Trade Name, Active Ingredient, Rate/Acre, Pre-Harvest-Interval and Re-Entry-Interval, and Field EIQ**, the latter being a relative ranking of the overall toxicity of the fungicide.

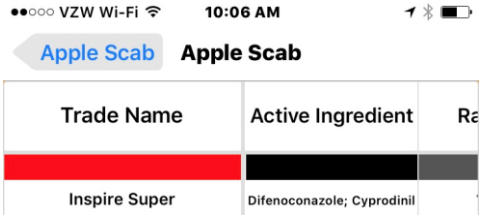








Similarly, **what is the Difenoconazole/Cyprodinil Trade Name?** Well, it's Inspire Super. Thus, rotating sprays of Pristine and Inspire Super (among others) is a good resistance management strategy for Apple Scab.



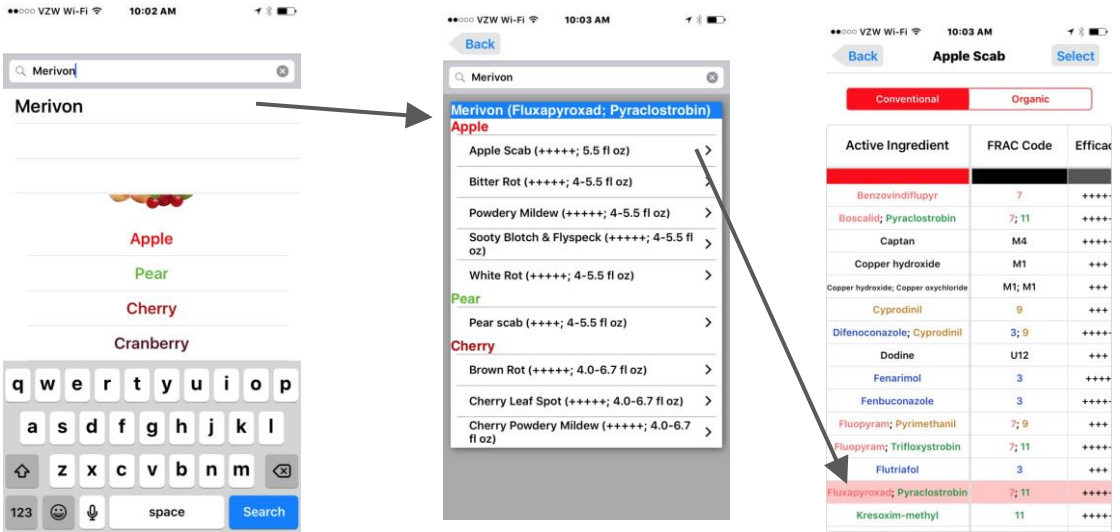
Going back to the main Disease screen, you can also choose **Trade Names** and get a list of all Trade Names used to control the Disease, including **Conventional and Organic options**.

Touch for Organic control options

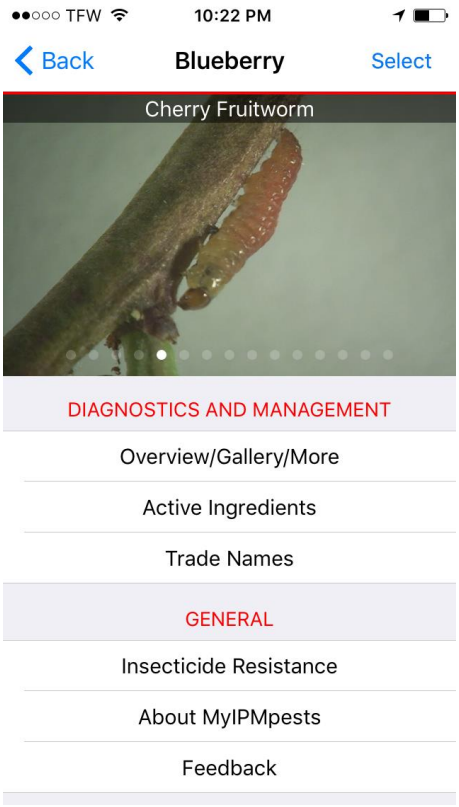
A hidden feature is that most of the **columns can be sorted** by clicking on the heading, for example EIQ if you want to quickly know what fungicide has the lowest (or highest!) Field EIQ.

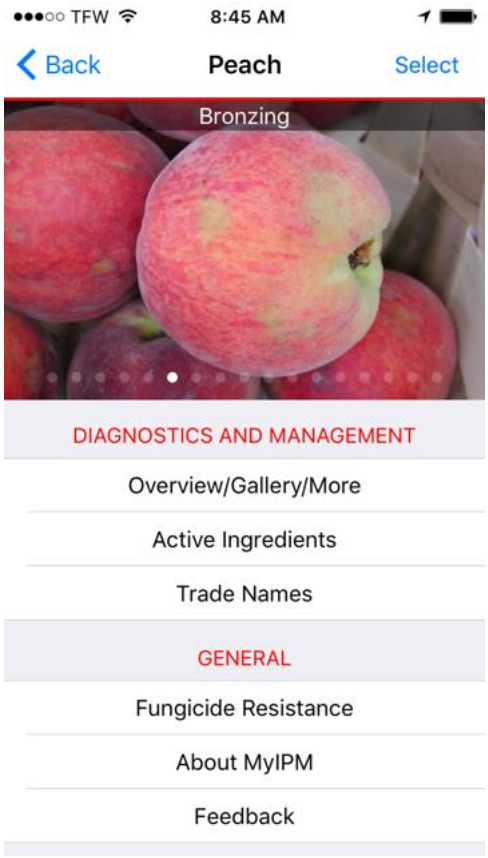
Touch any column heading to sort, here ascending on EIQ

Going back to the HOME screen, note the **Search** feature for active ingredients or trade names at the top. Type in a trade name and you get a quick **list of the crops** it can be used on, along with **efficacy and rate**. Touching Apple Scab, will result in the list of active ingredients with the one chosen flashing briefly, here it is second from the bottom highlighted (and flashing!) in red.

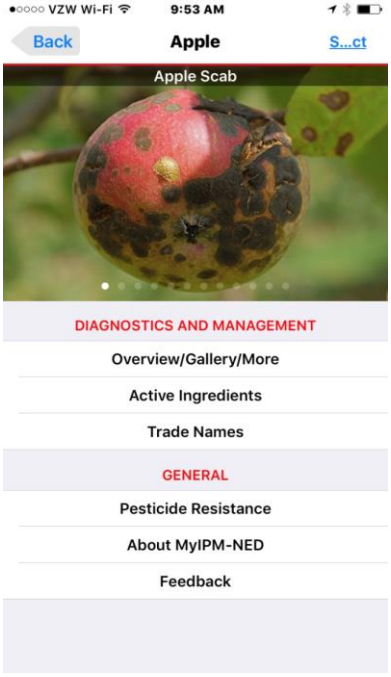


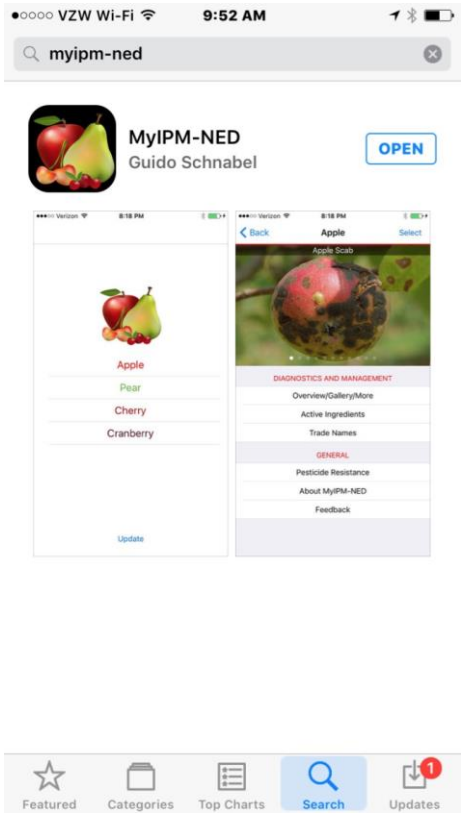
Remember that the MyIPM series now also includes **PESTS** and we strive to add more pests for more crops over the years. We have also included **SKIN DAMAGE and DISORDERS**.





Finally, going back to the home screen, there is some **GENERAL** information on Pesticide Resistance, About MyIPM-NED, and the opportunity to provide Feedback.





We hope you download and give **MyIPM** a try. Simply SEARCH for MyIPM on the Apple Store or Google Play. **Provide Feedback** on improving MyIPM as we are constantly trying to make this app even better.

Note: if anything is not working after an update, delete and reinstall the app

Thanks for listening...