What myFields Can Do for You

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What's here?

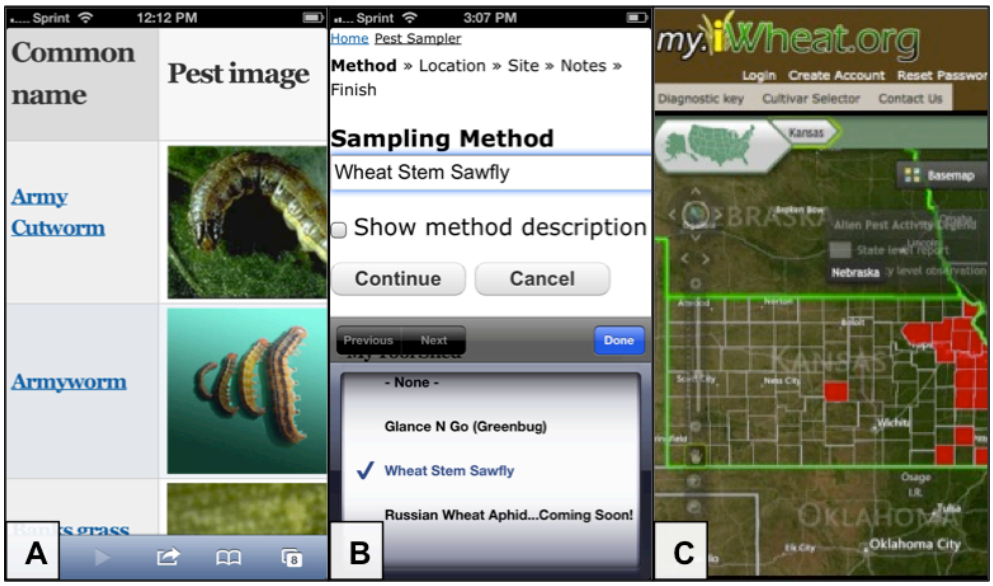
1) Summary of iWheat pilot project
2) Data collected from iWheat project
3) Transition to MyFields
4) What you can expect from MyFields in 2015 and beyond

For more, visit http://myfields.info/features

Summary of the iWheat.org pilot project

The iWheat project was a regional effort funded by the USDA that works to facilitate a long-term, area-wide management program for winter wheat in the Southern Great Plains. A primary objective of this project was to streamline access to science-based management resources for wheat by housing them under one website (iWheat.org). The iWheat site serves as a free, mobile-device friendly, decision support system for wheat stakeholders. Registered users can access the following modules:

- **Arthropod Diagnostic Key:** An arthropod pest key is available and interfaces with other tools by linking pest to the variety selector to show cultivars with available resistance and relevant factsheets for more information.
- **Pest Sampler:** Pest sampling plans for greenbug and wheat stem sawfly and their associated algorithms are coded into the sampler module.
- **Proposed Mapping Features:** As user data is collected, regional pest maps can be created to show current pest populations detected in wheat fields.
- **Variety Support System:** The system currently lists 2,050 varieties which are searchable by state, agronomic traits, yield performance, pest resistances, etc.
- **Dynamic Field History:** Users create fields by designating field location and size.
- Non-registered and registered users get access to **Extension materials and resources**, including guides and videos.



iPhone screenshots of iwheat.org modules for the Arthropod Diagnostic Key (A), the Pest Sampler (B), and proposed mapping features (C).

Summary of the iWheat.org pilot project

What we learned from site use in 2014?

Quick site stats for 2014 (Google Analytics):

- 32,796 page views
- 6,664 unique visitors
- average pages visit per session (a session is >1 page visits) = 3.5
- average session duration = 3.5 min

How are people finding the site?

- browser search = 4,895
- direct search for iWheat = 2,987
- referral = 1,471
- social (tweets) = 48

Where in KS are people looking?

City	Acquisition		
	Sessions ↓	% New Sessions	New Users
	1,736 % of Total: 18.47% (9,401)	43.89% Avg for View: 70.55% (-37.78%)	762 % of Total: 11.49% (6,632)
1. Manhattan	1,060 (61.06%)	31.51%	334 (43.83%)
2. Wichita	92 (5.30%)	54.35%	50 (6.56%)
3. Hays	65 (3.74%)	70.77%	46 (6.04%)
4. Topeka	50 (2.88%)	66.00%	33 (4.33%)
5. Beloit	38 (2.19%)	86.84%	33 (4.33%)
6. Overland Park	33 (1.90%)	54.55%	18 (2.36%)
7. Colby	20 (1.15%)	45.00%	9 (1.18%)
8. Concordia	20 (1.15%)	60.00%	12 (1.57%)
9. Great Bend	15 (0.86%)	66.67%	10 (1.31%)
10. Osage City	15 (0.86%)	86.67%	13 (1.71%)
11. Scott City	15 (0.86%)	60.00%	9 (1.18%)
12. Dodge City	14 (0.81%)	85.71%	12 (1.57%)
13. Olathe	14 (0.81%)	57.14%	8 (1.05%)
14. Salina	14 (0.81%)	78.57%	11 (1.44%)
15. Newton	13 (0.75%)	76.92%	10 (1.31%)
16. Atchison	12 (0.69%)	33.33%	4 (0.52%)
17. Hutchinson	12 (0.69%)	58.33%	7 (0.92%)
18. Kansas City	12 (0.69%)	33.33%	4 (0.52%)
19. Moundridge	12 (0.69%)	58.33%	7 (0.92%)
20. Garden City	11 (0.63%)	63.64%	7 (0.92%)

What are they looking at on the site?

Top pages visited:

1. Variety Support System
2. Wheat Management Guide
3. Arthropod Diagnostic Key
    - Pale Western Cutworm
    - Russian Wheat Aphid
    - Army Cutworm

Other outcomes from this project:

- Exploring online certification process with Crop Improvement Associations (KS, NE, OK, and CO)
- Collaboration with *Bugwood.org* to create real-time maps
- Funds to support new tools/modules: general reporting, planting wizard, and biocontrol estimator

Evaluating Delivery of Extension Resources and Movement Towards Apps

What was learned from stakeholders in 2014?

A) Summary of crop management information survey (84 crop school participants):

- Where are they getting their info?
  - 46% consultant
  - 23% online search
- 89% would use Extension resources more if they were easier to find
- 92% agree *MyFields.info* would be an effective way to deliver Extension tools/resources
- 87% would be willing to create an account to access *MyFields* tools
- 89% want alerts/notifications on crop-related risks
- 52% want networking capabilities

B) Summary of pest sampler activity/survey (84 crop school participants):

- For sorghum growers, there was a 47% increase in willingness to incorporate sampling forms into treatment decisions and a 68% increase in willingness to share sampling data on a web-based application.
- For soybean growers, the was a 53% increase in willingness to incorporate sampling forms into treatment decisions and a 69% increase in willingness to share sampling data on a web-based application.

C) Summary of sorghum/soybean needs:

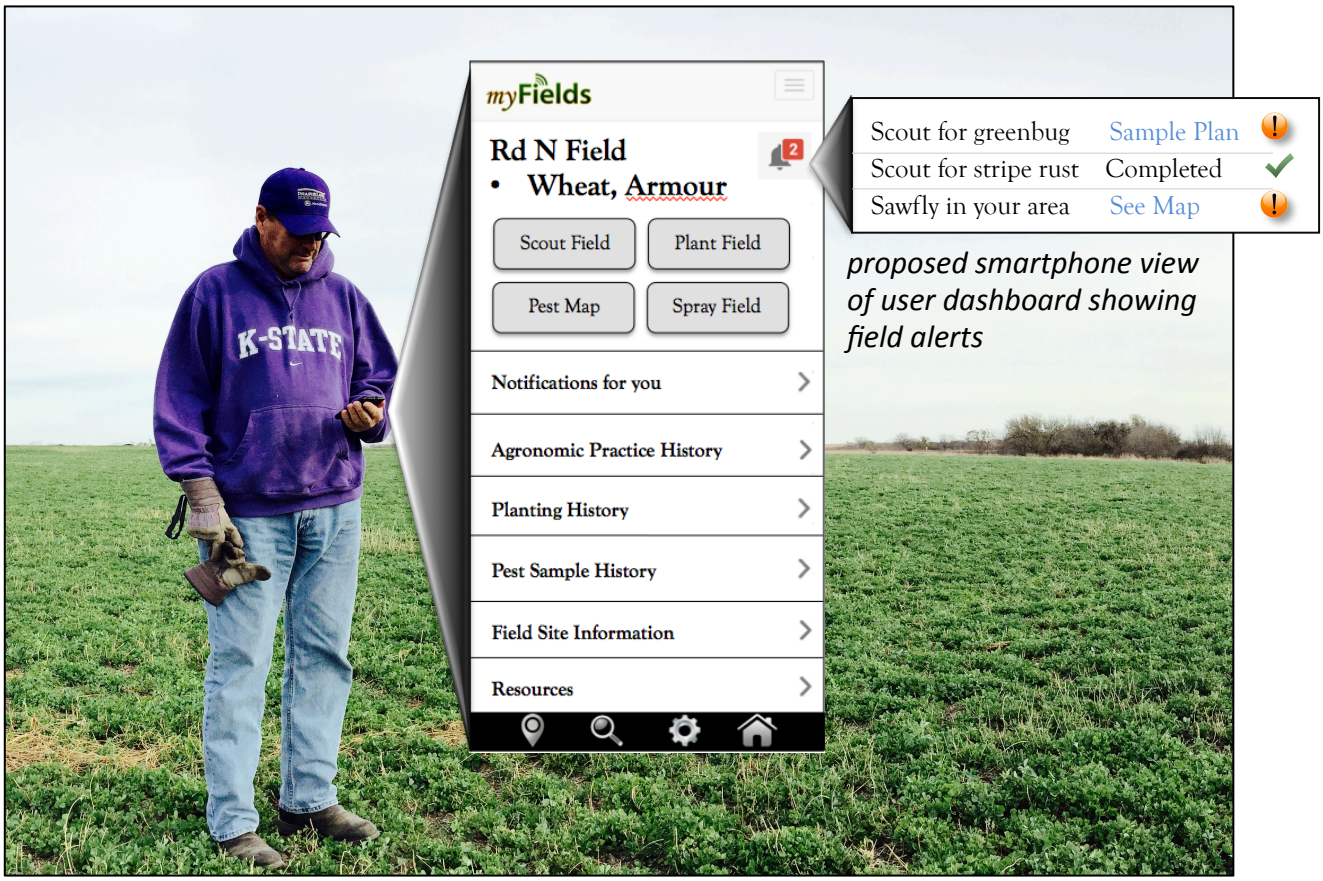
- Sorghum Schools (53 participants)
  - 75% would use *MyFields* to manage sorghum
- Soybean School (31 participants)
  - 73% would use *MyFields* to manage soybean fields

D) Extension Agent updates (32 Agents):

- 93% of agents agree that Extension materials and resources would be used more often if they were more accessible (easier to find).
- 60% of agents agree that networking (creating groups/chats) with other growers and/or agents on a web-based system like *MyFields* would be useful.
- 55% of agents agree that the primary resource they are currently using from KSRE programming is verbal communication with area specialists.
- When asked, what are stakeholders asking from agents that they are not able to provide?
  - 48% said information outside their specialty
  - 24% said mobile apps
  - 19% said real-time pest identification

myFields Transition in 2015

***MyFields* will leverage push technologies to help you manage fields and farms!**



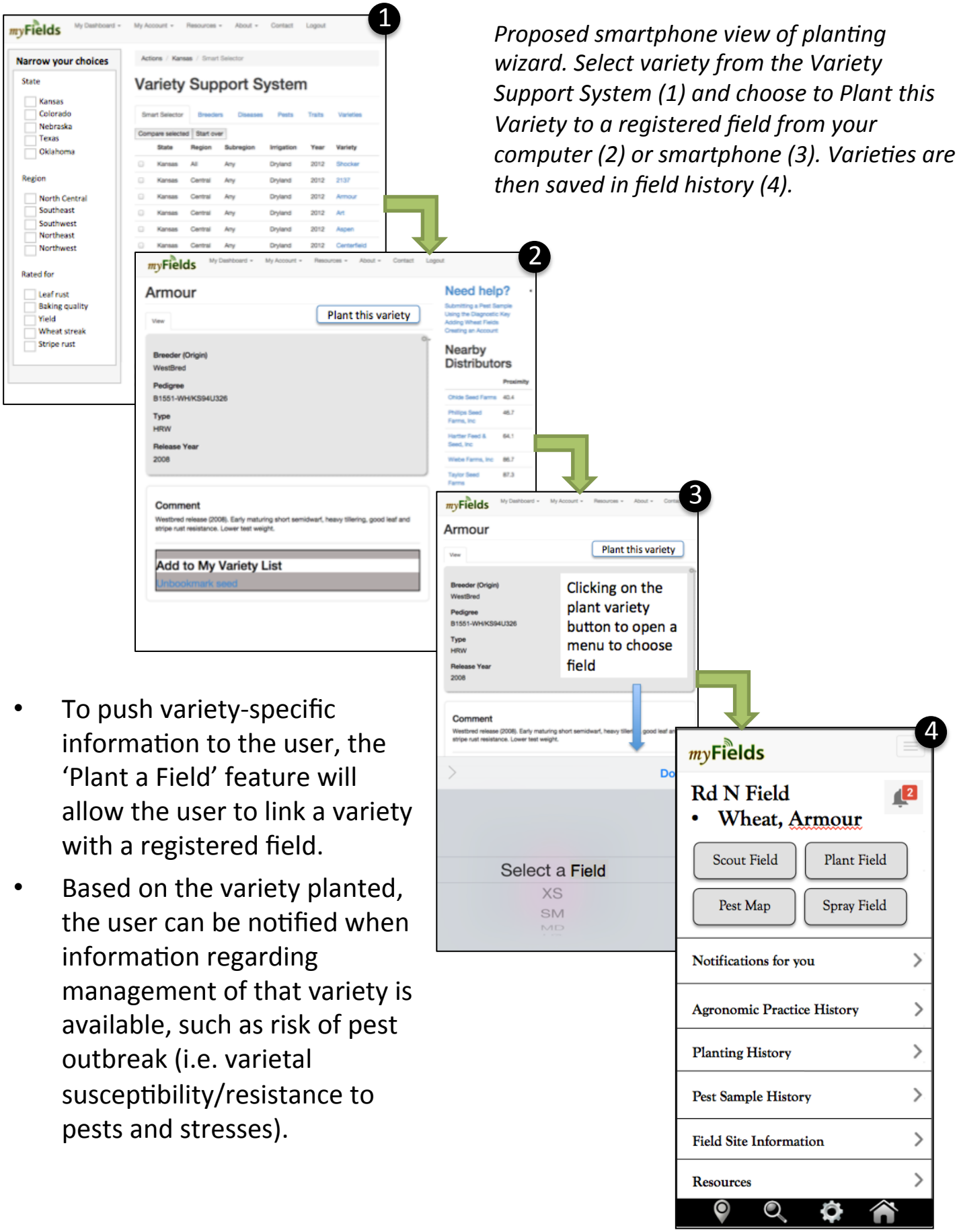
proposed smartphone view of user dashboard showing field alerts

The expanded version of *iWheat* to a multi-commodity site, ***MyFields.info***, is a USDA-EIPM funded program (2014-2017). The application is being developed to:

- Facilitate economical and effective IPM systems for agronomic crops
- Provide stakeholders with high-resolution environmental and biological monitoring system for predicting pest incidence, estimating economic losses, and providing input-specific and valid action thresholds across multiple cropping systems
- Connect varying diagnostic tools for arthropods, diseases, and weeds.
- Provide a novel delivery method (i.e. *MyFields*) for implementing IPM by pushing management information to stakeholders based on account preferences, field locations, and varietal selections, which ensures a multi-directional flow of information across several disciplines (i.e., agronomy, entomology, pathology, agricultural economics).

- ✓ *If you already have an iWheat account, then you will receive email notice when MyFields.info goes live.*
- ✓ *iWheat accounts automatically transition to MyFields.info.*
- ✓ *New multi-commodity site is designed to push variety-specific information to user based on preferences (e.g., state, county, crop type, variety, etc.)*

myFields Plant a Field: coming soon!

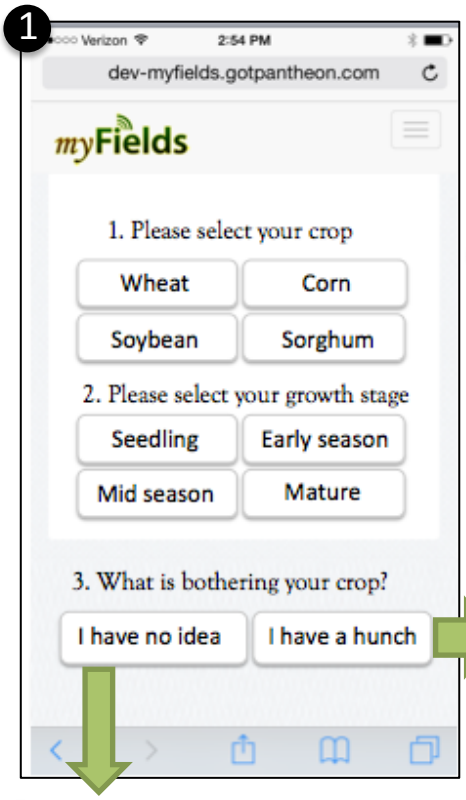


Proposed smartphone view of planting wizard. Select variety from the Variety Support System (1) and choose to Plant this Variety to a registered field from your computer (2) or smartphone (3). Varieties are then saved in field history (4).

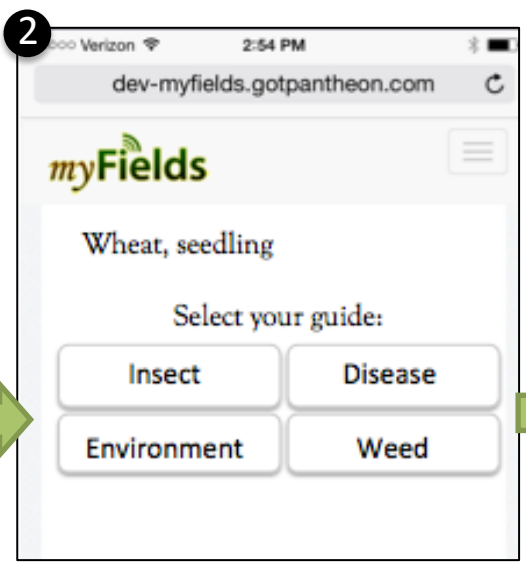
- To push variety-specific information to the user, the 'Plant a Field' feature will allow the user to link a variety with a registered field.
- Based on the variety planted, the user can be notified when information regarding management of that variety is available, such as risk of pest outbreak (i.e. varietal susceptibility/resistance to pests and stresses).

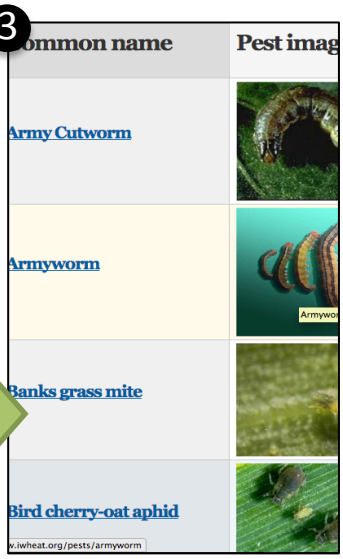
myFields Diagnostic Guide: coming soon!

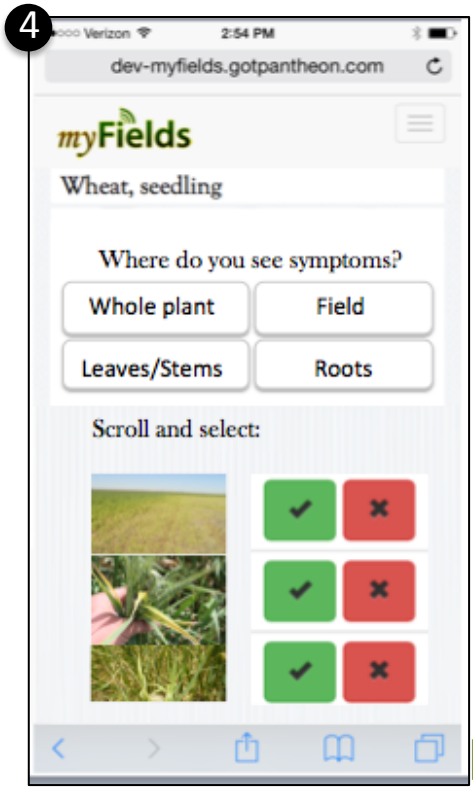
- Sponsored by Kansas Crop Improvement Association
- Based on *Diagnosing Wheat Production Problems in Kansas* (S-84)
  - Updated information for 2015 (DeWolf and Shroyer)



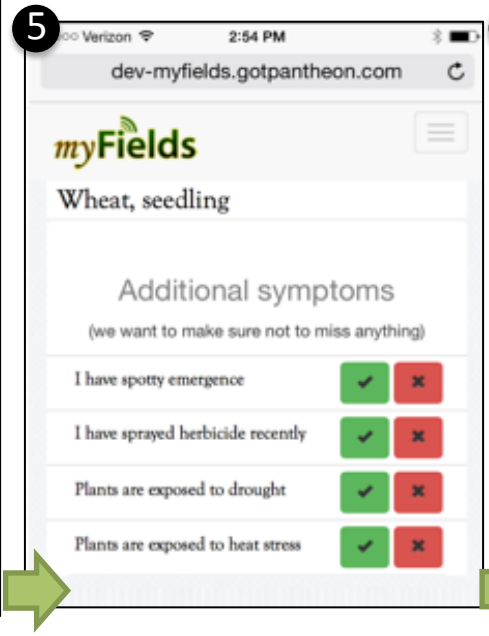
Proposed smartphone view of diagnostic guide. Select crop and growth stage (1) to view only the relevant information that you need. If you have an idea of the problem, you can choose to see topic-specific guides (2-3).



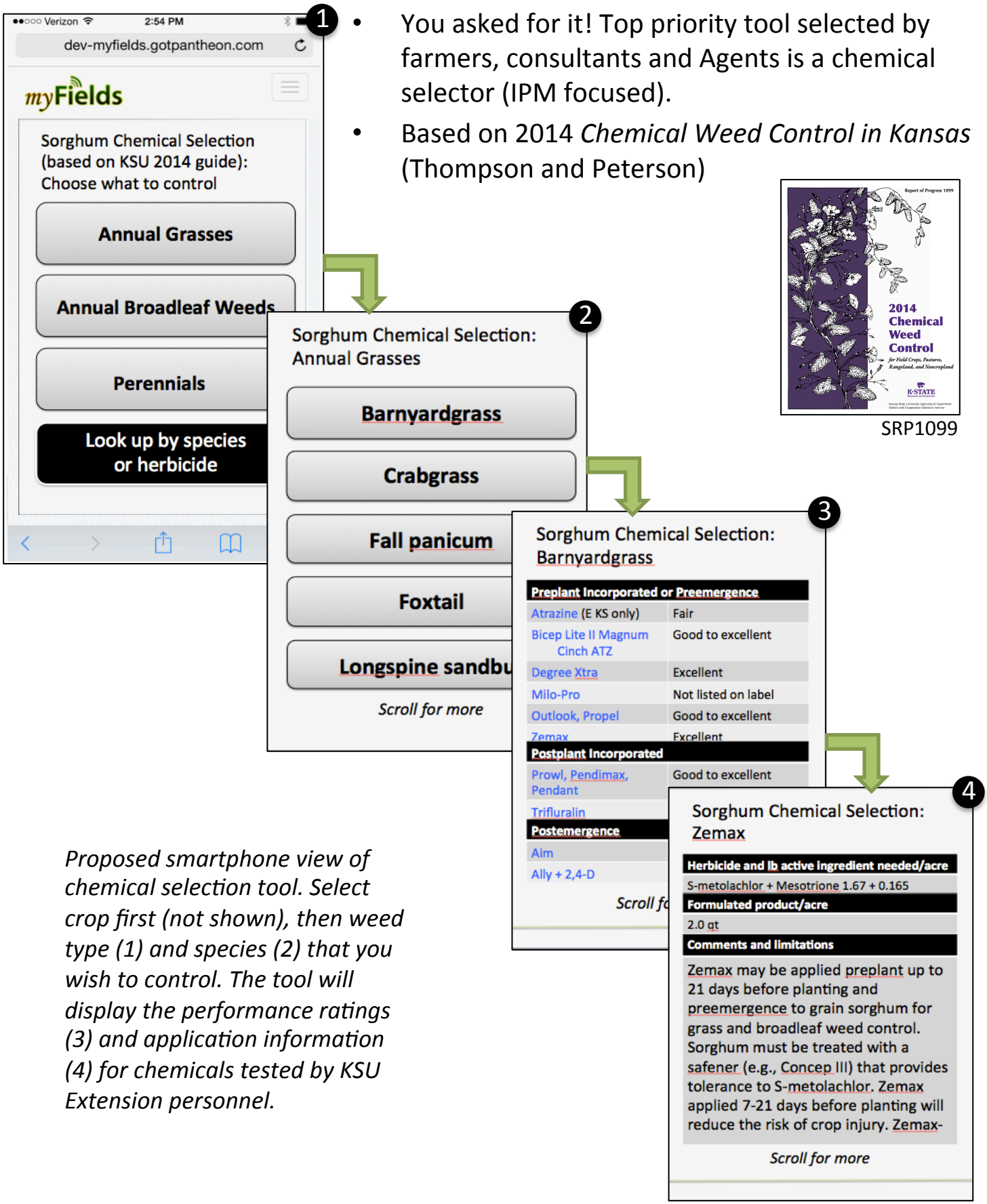




If you're not sure of the issue (4), then you can start from scratch by identifying and reporting symptoms (5) to help narrow down the possible causes (6).



myFields Chemical Selector: coming soon!



- You asked for it! Top priority tool selected by farmers, consultants and Agents is a chemical selector (IPM focused).
- Based on 2014 *Chemical Weed Control in Kansas* (Thompson and Peterson)

SRP1099

Proposed smartphone view of chemical selection tool. Select crop first (not shown), then weed type (1) and species (2) that you wish to control. The tool will display the performance ratings (3) and application information (4) for chemicals tested by KSU Extension personnel.

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Ph.D. Entomology, University of Minnesota, St. Paul MN, 2007