

EN2017

PESTICIDE LABEL MATCHING PROJECT

Mardi Klevs, U.S. EPA, Region 5
Dave Scott, Office of Indiana State Chemist
Alan Boutureira, U.S. EPA, OCSPP

2017 Exchange Network National Meeting

Innovation and Partnership

May 16-18, 2017 Sheraton Philadelphia Society Hill Hotel Philadelphia, Pennsylvania

http://www.exchangenetwork.net/en2017

ABSTRACT

The Pesticide Label Matcher (PLM) is an E-Enterprise Project with goals to modernize and streamline the decades-old work process for conducting pesticide product label inspections.

Vision:

The Pesticides Label Matcher App will be a mobile, electronic label comparison tool that checks market labels against state and federal label databases to assist enforcement personnel in identifying potentially violative products.

| presettin gatabas in yau area. At earle and ground explication expellment | Temperature and Humbridly Low humbridy and high temperature in | reporter and Horselly Talk I has the fungitib Crop quality Registered to | | | | | | | union Director or the | read Sprays owng tidas partan to com sar | secretary species | unity header to gittle his po | or without process | ce traceing payens, etch recon- storners: Scins leavable to clean | and against a transplant |
|--|--|--|--|--|--|-----------------------------|--|--|--|--|--|--|--|---|-----------------------------------|
| that to proper mentalises are saturated unique peoples center. Assisting group off of the application site is the superioditify of the application. Audia Application Mathicia and Equipment. | Crep | Togel Piness | Product Rate per Application of style | Madeum Number of Sequential | Rustman Froduct Rate per Season' | to Narwell | m ground broad a lat a dhierted of mobiles affilian | ract) methods of applic translatingmy over the spreyed. For such use | astori. Mesethre may also be a sinces or plant beds with diago s, necurs the rate of Masethre i | policy the time to see the | partous ir temperi protector. | S. No. | retleding - Monter efficacy of all trigos and program against the targeted public | Sis used in the Obesia man- gen and record other Sotters for theses development of a | |
| The intention of many augment is at least the earth of their children of the potential of the great of the large state and the great and the large state and the potential of the great of the large state and the potential of the great and the large state and the larg | The perhadia chould only be applied who septiled who septiled who septiled who septiled on an | GLAN Spot Spot Spot Spot Spot Spot Spot Spot | increase distinctions IREA [improve upon place dated and and applicate dated and and and applicate dated and and applicate dated and and applicate dated applicate dated and applicate dated applicate dated and applicate dated app | 610 | Police Agiptications | T (cal to away | PREMI | print the see study ground. The address is seeing the print of the first of the study of the stu | | | dense in the control of the control | | | | |
| copul; reacts dat pasets on est not present dat if application and nade impropery or until uniformation and commissional pre-Wind. Temperature and Hamidity, and Respecture investigation. Combrating through the | Sprayer Proporation Charicularis and rejector bythen should lien with clean water. | 264 | Rognij spryken led sjed rightyken (SS) | | | | | Macteum Product Flate | Maleya Nother of Lease | Maceuse Snote | g ontering application gross applications pa | | teneral Arter | Brof tungkine Cesp-specific Peoples il Application nodal application in Nave Work State, il aquello restitato pauto an, but noti | |
| Where - the high the rise matter is agily the highest practical spray volume. Natural with higher state from produce legist display. Pleasable - 50 NOT access the roccile manufacturar's recommendation. | Application instructions Apply meaning* fampoise at some and | Fo | ny migan mograti Amuri | | | | | er Application (F ICL) 5 | Folker Applicati | | pane it which agos its products and the less applications the | cations of Group 11 fungitions are close, the number of Group 11 lung out the no more than 1/2 of the little | nette of ponds | s, obeans, manhas, ponds, actua h). | fee, and contenential fluit |
| Researe - 50 NOT Broad the roots manufacture's recommendate procure. For many root is type, their procure produce large droplet. When Rober forwides are readed, use hother fine tells income included. | Sprinter integrine Applications the • Apply the polastically frough sprints pack, laters more, and the, box leaves | Rec | octoria Signi? black patch (octoria sign) | | | | | | - 4 | 64 | Ittle alpotoatore par s | MECON. Name of Growap 11 (Cold-combining huno | COLUMN NAME | o otherwise specified on this label, use in on per acre. For serie egylication to oth done of spray colution per acre. DO NO! | or contracts; value on two, Trans |
| howevery precious. - Name of Number - Little Telephone number of records that process | hand more impation systems, DO MC other tigal of intigation dyclam. | Day | program keli spot igrosposi meliciti | | | | | - | 1 | 629 | America appropriations | rolland mode of scion, the mains status in Restrictions and Candat State formation Costs, the State | Nest as Office | ton target assets for more per ver- tion target assets of appropriation to attain, that age come, | |
| uniter change. - Nazala debreidos. Cranting replacius puritur spray is released par- alle to the artimani produces larger dioplets than other orientations and | Acc this product to the papinstal supply maintain a continuous title by the reach ing systems, inject this product visible. | Application Directions, Fo | rigina diama cirtic, buji | application of the | aliba per le diama da | elpret. | | · · | | 5.09 | C MONANTHON | | ot errors was | | |
| t recommended professe. Significant defection from the textorior will re- duce docaled the and increase difficultantle. | sheet rate per sone for had crop. 000 kmg/per acre. In stationary or nancost product/water metuse in the last 15 to 5 fallen from the all of the segment of the 5 had the stationary to the segment one per what waterspace Same of the bayont for | Relations Management, 00-000 riches man ten Ten Sit gestückter of Weedings op var. Agend agentation in 16 to 25 decrease or trades an einforces to Meeding op var. In agendangs per put, is the right or an extract or some often disease practice. They can have the right or an extract or some often disease practice. They To 807 agent man that 21 sects, 5, 6, 6 is a round of feeding in year. (NO 807 agent man that 21 sects, 5, 6, 6 is a round of feeding in year. | | | | | d d | 1 | (1) | Talle 1 reading long | Manual Time | Describer (continue Maximum | 7 | Haitsun Product | |
| Notifie Tigo: - Like is match type that is designed for the intended application. With most reside typic, namew spray angles produce angle objects. Consider using the light resident, based other nations oranifed stages are produced as a special produce of angles or policy. | | | | | | | 1 | 1 | 649 649 | Опр/Сер Опир" | from Application to Harrest (PH) stars | Product Ra per Applicat (F ID) R | ale Melevin | Pate per Senton (Fizzoli) (Corporationary | |
| White Bio HOT apply at wind speaks greater than 16 mps, Diff potential is sewant when wind speak does not accord 10 mps, wowever, many factors, includ- | Hyury lack of effectiveness, or high pact form non-uniform destitution of the lack to required for good control Good agil the entire application period. | | | | | | | - 1 | 4 429 | Obsert Organ (represent, flax seed, softweet) | э. | q | 1 | žă, | |
| ing dropak die and egypnient type, delembre tilt potential at any given spiech. Application dropad tie annäed televe 2 mph dies to variable eind di- rection and high invention potential. Local televis den intererowerse potentis. | flyoutesis questions at out cultivation; senter consistit, southwell manufact | | | | | | | 12 | - 1 | 34 638 | Perst | 54 | 4 | 1 | 879 |
| freey applicator or could be shallowed in consent pollums and how they al- best group cost. | The system must contain a functional of the pressure does appropriately tracket | | | | | | | 4 | 1 | 40 | Pesn | | | 1 | 54 |
| | water course contamination tries based | ca cortangular for oax | | | | | | | 1 | 6.29 | N/A | Apply no later than 62% need emergence (Feelers 10.3, Zaclah 16) | | | 678 A |
| • | | | | • | | | | 7 | | | Sorghun | Apply no later than 20% forwards | d | | (420) |
| | | | cergen | shrau acrashi | SCR TOTS (DRING), PUR | | IO NOT use admission or or | o of alter the VIII days o | TO ME SENSE THE | EXTENT CONSISTENT W | Stylen | | a | | A.00 |
| | | ACE | adjoiners | should the read a | Aut the cytain down and r the | | tigs under specifically recor what as when the lad branc | rimandus un (AASF raciale) A of the bassal it, complete | of the viful stage is provided to take of | ER IN CONTRACT, TY, OR OTHERWISE, SHA | Special to the control of the contro | | | | d20 |
| | ■ BASF | | tr pertition | DO HOT consect an integration bysides providing greatmost registered used. To precisite application to a policy register option or states the published leads on the state on the precision of the state of the published options on the published. | | | | | Londished to use throom field to the links product leads for specifying disc. White most section set field with the product soft incomments the Chillipsian decorate method adjusts. | | (logar Book ^{ee)} (resits and tops) | 1 | - d | 1 | 678 |
| | The Chemica | Specific instructions for Posits Water Specials provision to the public of Windows Allergy II. 1. Packs value spatial means a spatial not the public of the public of Windows as appared to the loss post water for sealing for packing and a Commiss Produces on the Commiss | | | | blow the most nestective is | Tuberous and Core | | | | e | , | 0.14 0.14 | | |
| | | 110 gallons | 2 Charapto Societa | days did of the year in systems connects returned courses in | of to public water systems may be in the property for | metorian a | count a liki Fragmantalive ration concerning academic. | | that for more letter. | to the Salar offer this product to the bragging Conditions of only by agreement in w | What and | Apply to the thin the beginning of toward produce (E.E. Zadok's (II) | | - 1 | 629 629 |
| Place Bulk Product Booklet/Label Here | PAREINS CONTINUES TO A CONTINUE A CONTINUES TO A CO | | Selection of the select | season must be discharged for a season for all year better for the control. The season is controlled to the control of the con | | | Mixing Order Water-Aghias Honory and create member against severe Aghias Honory and create member against severe Aghias Honory and Christian severe Aghias Honory and Christian severe against the severe against a severe man of the severe against severe against the severe against severe | | artes fill of class gent application auth component in the control of a PAR togs have gray tent before whiche proclem. | d only on grammati in w make or facility | This belt. It washes * tegridation from greated integremental to complete discretion and countries. "The screepest for loss with our opposite a belt in American Registration (on expectific Nepolements. "Weathern proced using our complete greated in early retrieved but the depending on logar discase, which is false in Headbard Registration growth for segmentation (the countries of mode) and procedure of the segment of the | | | | |
| 1 | | | | | | | | | · · | | | | | | |

Pesticides Label Matching Project

Major benefits this project provides include:

- Reduce pesticide label inspection program complexity and cost.
- Vastly improve efficiency and impact of inspections.
- Promote greater and more proactive regulatory compliance.
- Provide instant access to the critical data while in the field.
- Allow greater public access to timely product registration data.

Project Milestones

- Return on Investment Analysis
- Feasibility Study
- 18F Design Workshop
- Development of Minimal Viable Product (MVP)
- User Testing (May 2016)
- Beta Testing Release 1.1 (August 2016)
- Beta Testing Release 1.2 (March 2017)
- Production FY17 (September 2017)

Inspection Process Field Research Workshop



Inspection Process Field Research Workshop

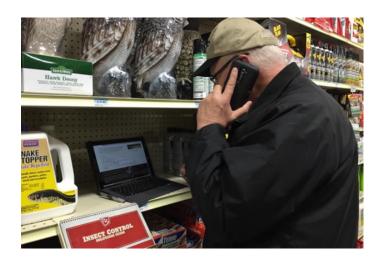
Studying the process illuminated weaknesses in existing databases as well as in inspection process:

Field investigators struggle with their hardware



Field Research Workshop

 Frequent calls to ask basic product registration status questions create bottlenecks



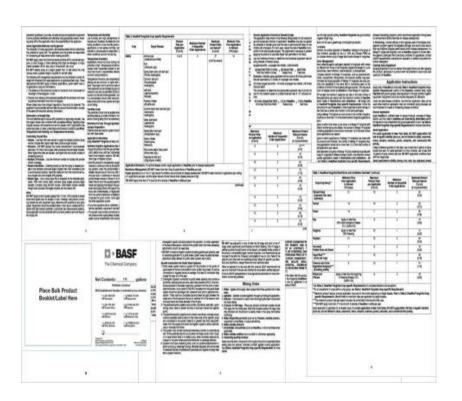
Field Research Workshop

- OPP-accepted "master labels" are often long, complex, and different from market/container labels.
- EPA master labels are stored in PPLS, but market labels are not centralized in an EPA database.
- Some "official" market labels are stored in several different state or industry centric privately facilitated fee-based databases.
- Market label customers: States, Regions, Tribes, Registrants, Users.

Current label formats are not standardized...

...standardizing format would significantly improve inspection efficiency





Adapting app to identified barriers

 Without a market label database for comparison purposes, we relied on structured data currently available in PPLS

 Some standardized label formatting could result from implementation of the "SmartLabel" database

 Expanding the list of inspection data cards to additional parts of the label could be done incrementally over time

Results

- Separate designs for iOS, Android, and web
- OCR technology is still experimental, limited by differences in label formats and lack of standardized data fields:
 - Font
 - Color
 - Placement of information
 - Curved surfaces
- Success in creating user friendly data base that can create inspection records for inspectors

Who can use this app?

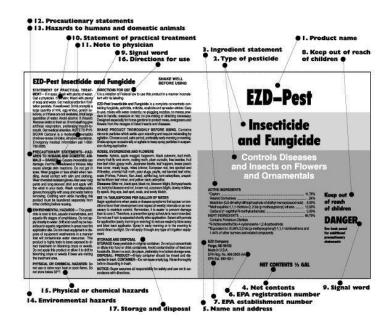
- State and Federal inspectors
- Registrants: will be able to screen for compliance with master label
- Pesticide Users: will be able to easily access key directions for use

Future spin-off? Inspection management database

- Information about State or EPA product inspections:
 - Locations inspected
 - Products inspected
 - Compliance outcomes
- Prompts for products that are targeted for inspection
- New product alerts
- Electronic capture of evidence in the field
- Case management
- Creation of inspection forms, including notice of inspection
- Generation of meaningful inspection & compliance measures

Next Steps

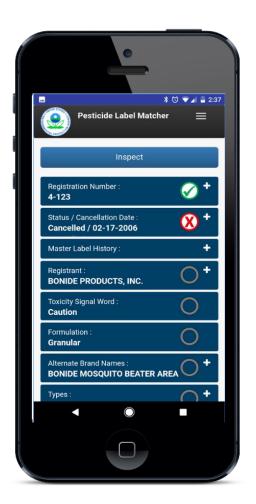
- Finish beta testing: June, 2017
- Final production: September, 2017
- Build the Inspector database
- Leverage the SmartLabel database and integrate it into the PLM
- Consider standardizing label language
- Consider building a national market label database
- Consider identifying State participants for integrating State market registrations and label image for state inspections (Pilot)



Demo



Available through iTunes App Store and Google Play



Questions?



Contact Info:

Project Manager: Alan Boutureira, OCSPP, boutureira.alan@epa.gov

EPA Co-Chair: Mardi Klevs, R5, klevs.mardi@epa.gov

State Co-Chair: David Scott, Indiana, scottde@purdue.edu