WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE & CONSUMER PROTECTION

Title: Seed Sampling Modernization

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BACKGROUND

The Seed Labeler program licenses 700-750 seed labelers annually. Each year our goal is to sample and/or inspect 1/3 of all licensed labelers in the state on a 3 year rotation. We also target labelers with a violation trend exceeding the current state average (4.66% in 2015).

We currently inspect an average of 31% and sample 13.46% of the seed labelers annually. We average 344 samples annually, 56 short of our annual goal of 400. Collecting a sufficient number of samples is necessary to substantiate developing cases that may end up in compliance conferences. The sampling and inspecting (Policing) of industry also serves as a visible action that notifies industry that we are actively out there looking for violations.

In an effort of improving our programs each year, we review the program and its processes to see what we can do to help the programs run more efficient with better results.

The collection and recording processes for official representative seed samples for compliance monitoring has been identified as an area where improvements to the process can be made.

CURRENT CONDITIONS

CURRENT CONDITIONS

Seed samples collected by field staff are entered on Seed Sample Collection Record forms (ARM-PI-152), which requires all information regarding the collection site, the labeler of the seed and all information from the label. In addition, information from the label is also required to be entered on the Official Seed Sample Collection bag (ARM-PI-406). Hard copy forms are mailed to the Madison office for data entry and sample bags are sent to the laboratory for analysis. This process takes quite a bit of time and also includes human error.

Task	Time (Current State)
**Collecting each sample takes*	*2 hours (includes drive time)*
Completing the Seed Sample Collection Record form (ARM-PI-152)	**10 min per sample**
Mail Seed Sample Collection Record forms ARM-PI-152 to office	***48 hours – USPS (4.3 collection forms average per mailing.*
Completing Official Sample Bag (ARM-PI-406)	**6 minutes each**
Data entry of ARM-PI-152 in office	**10 minutes each (67 hours annually)**
Total Per Sample	**26 minutes**
Total Annual	**173 hours**

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GOAL

Our goal is to develop a more efficient method for the collection and recording of official seed samples by reducing the sample collection time, human error and data entry time. Based on the goal of collecting 400 samples annually and using the current data available for collection times, the following goals were established:

- reduce sampling time by 10%
- eliminate mailing of written reports to the main office
- reduce data entry time, in the office, by 90%
- reduce time spent completing ARM-PI-406 sample bags by 80%
- Reduce total time spent annually completing the seed sampling process by 70%.

ANALYSIS

Identify the root cause(s) of the problem:

- Antiquated paper system
  - Recording seed sample information is burdensome. Two of the forms used in sample collection process require duplicate data.
  - Inspectors have too much paperwork.
  - Allows for a variety of human errors many of which could be eliminated.
  - Data entry in the office takes too much time. Sample forms are currently mailed to the office and then entered into the database.

PROPOSAL

- Create a Data Base that allows the user(s) to:
  - Eliminate the need to complete ARM-PI-152
  - Enter seed sample data at the collection site.
  - Choose from options in a drop down list whenever possible to eliminate human error.
  - Transfer sample data to the office without mailing, thus reducing postage costs and mailing time.
  - Drastically reduce data entry time in the office.
  - Eliminate the need to fill out ARM-PI-406
  - Print the seed sample data on a sticker that can be printed and adhered to the sample bag.

- Purchase laptops/tablets and portable printers that support the software and will communicate with DATCP network.

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PLAN

February through mid-March 2016:

- Create a Data Base that allows the user(s) to:
  - Eliminate the need to complete ARM-PI-152
  - Enter seed sample data at the collection site.
  - Choose from options in a drop down list whenever possible to eliminate human error.
  - Transfer sample data to the office without mailing reducing postage costs and mailing time.
  - Drastically reduce data entry time in the office.
  - Eliminate the need to fill out ARM-PI-406
  - Print the seed sample data on a sticker that can be printed and adhered to the sample bag.
- Purchase enough laptops/tablets and portable printers to run a pilot program that will support the software and will communicate with DATCP network.
- A Database has been created using Microsoft Access.
- The hardware requirements have been evaluated and three Lenovo Yoga 12 laptop/tablets and 3 HP Officejet 100 Mobile Printers have been purchased.
- Computers and printers have been issued to 3 inspectors to pilot this proposal.

End of March through May 2016:

- Pilot testing
- Data collection – Inspectors will be collecting samples using old forms and standard procedures and 3 others will be using the new system. Data will be collected by all inspectors for comparison in:
  - time collecting samples
  - accuracy of sample data and human error
  - data entry times
- Pilot evaluation – If pilot is successful, purchase hardware for all inspectors for the 2017 seed sampling
- Write up final Six Sigma analysis

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EXPECTED IMPROVEMENT / ACTUAL IMPROVEMENTS

Task	Expected Results	Actual Improvements
Collecting each sample	**10% time reduction per sample**	
Mailing of Seed Sample Collection Record forms ARM-PI-152 to office	***Eliminated - No need***	
Completing the Seed Sample Collection Record form (ARM-PI-152)	**25% time reduction**	
Completing Official Sample Bag (ARM-PI-406)	**80% time reduction**	
Data entry of ARM-PI-152 in office	**70% time reduction**	
Human error	**50% reduction**	