Seed Law: What We Need to Know

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1) Botany Basics
   Mating systems
   Genetic Variation

2) Germplasm Resources

3) Seed law
   a. Why, What?
   b. Seed sharing and seed law
   c. Proposed changes to Ohio law
   d. Plant Variety Protection (PVP)
   e. Seed germination and testing
   f. Seed storage

Presentation Credit: Dr. David Francis, The Ohio State University
Why do we have laws about seed?

- To protect farmers
- Ensure seeds are viable & will grow the intended plant variety
- Ensure seeds are not mixed with weed seeds

Presentation Credit: Dr. David Francis, The Ohio State University
Enacted in 1939, the **Federal Seed Act** requires accurate labeling and purity standards for seeds in commerce, and prohibits the importation and movement of adulterated or misbranded seeds. The law (P.L. 76-354) works in conjunction with the Plant Protection Act of 2000 to authorize the Animal and Plant Health Inspection Service (APHIS) to regulate the importation of field crop, pasture and forage, or vegetable seed that may contain noxious weed seeds. USDA’s Agricultural Marketing Service is responsible for enforcing the labeling and purity standard provisions.

From ASTA (http://www.betterseed.org/)

**Accurate Labeling**

**Purity Standards**

Regulate importation (prevent weed and pathogen spread)

Presentation Credit: Dr. David Francis, The Ohio State University
Who writes the laws?

Association of American Seed Control Officials (AASCO) consists of seed regulatory officials from the United States and Canada, organized in 1949. AASCO updates the Recommended Uniform State Seed Law (RUSSL) which they developed and maintain as a "model" law for states and federal programs (See: http://www.seedcontrol.org/)

RUSSL
RECOMMENDED UNIFORM STATE SEED LAW (http://www.seedcontrol.org/russl.html)

Ohio Revised Code Chapter 907: AGRICULTURAL SEED (907.01-907.17; http://codes.ohio.gov/orc/907)

Ohio law is modeled on RUSSL

Goal:
To protect consumers and farmers, ensure seeds are viable, will grow the intended plant and are not mixed with weed seed or unwanted plants.

Presentation Credit: Dr. David Francis, The Ohio State University
Federal Law

State Law

Consumers

Germination
Purity
Inert Matter/Coating material
Presence of weed seed
Labeling

Presentation Credit: Dr. David Francis, The Ohio State University
Federal Law

State Law

Professional organization makes recommendations to Fed. & State

Germination
Purity
Inert Matter/Coating material
Presence of weed seed
Labeling

Consumers

Presentation Credit: Dr. David Francis, The Ohio State University
APHIS Charged with Fed. Enforcement

Federal Law

State Law

ODA charged w/ State enforcement and OSIA charged w/ testing and certification of seed

Germination
Purity
Inert Matter/Coating material
Presence of weed seed
Labeling

Consumers

Presentation Credit: Dr. David Francis, The Ohio State University
Federal Law

State Law

Professional organizations develop protocols, certify labs, etc...

Germination
Purity
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Presence of weed seed
Labeling

Consumers

Presentation Credit: Dr. David Francis, The Ohio State University
Seed Sharing and Seed Law

• Simpson Library Case in Pennsylvania: State interpreted exchange to fall under 2004 Seed Act, regulates the sale and distribution of seeds.
• Unlawful to sell or offer for sale seeds that have not been tested to determine the percentage of germination; contain prohibited noxious weeds; are not properly labeled; or have been advertised in a misleading manner.
• “sales of seeds” was interpreted to include exchanges, where no money changes hands.
• Described as “aggressive education and enforcement action”. (J. Armstrong, OSIA)

See article by Brian Lisik
Trish Popovitch
http://seedstock.com/2015/05/03/the-little-library-that-could-advocates-change-seed-exchange-laws-in-minnesota/

Presentation Credit: Dr. David Francis, The Ohio State University
Why would states regulate seed sharing as a “selling”?

- protect intellectual property rights of variety originators
- concern regarding noxious weed species such as Palmer Amaranth (recently found in conservation and ornamental pollinator seed mixtures)
State-by-state approach to changing seed laws

Sustainable Economies Law Center:

Redefine “sell” to reflect the plain meaning

Exempt non-commercial seed sharing from
   Labeling requirements (907.03, 907.07, 907.08)
   Seed labeler’s permits and fees (907.13, 907.14)
   Record maintenance requirements (907.04)

Exempt micro-enterprises (sales <$10,000) from requirements as above.

Presentation Credit: Dr. David Francis, The Ohio State University
About the Seed Law Tool Shed

This is a collaborative space to compile information about state seed laws, particularly to examine how they apply to seed libraries.

How to contribute to the Seed Law Tool Shed:

1. **Find your state**: Look at the list of states below and select the state you would like to contribute to.

2. **Add links to the state statutes and regulations on seeds**: Also give the specific sections of code (i.e. Section 7104 of...), since links quickly become outdated.

3. **Copy and paste in provisions that you find to be particularly relevant**: In particular, paragraphs that define who must comply with the law, relevant definitions, and relevant exemptions.

4. **Comment and ask questions**: Add notes on how you think the law might be interpreted, ask questions, and leave notes on areas for further research.

5. **Read this disclaimer**: Neither Janelle Orsi, nor Shareable, nor the Sustainable Economies Law Center, nor anyone else posting on this Hackpad can be sure that this information is correct and up to date! We did not do germination testing, vigor testing, accelerated aging testing, or anything else to ensure that this is good law.

Presentation Credit: Dr. David Francis, The Ohio State University
About the Seed Law Tool Shed

This is a collaborative space to compile information about state seed laws, particularly to examine how they apply to seed libraries.

How to contribute to the Seed Law Tool Shed:

Hackpad is moving to Dropbox Paper.
We've started automatically migrating pads, and Hackpad will be shut down once the migration is complete.
To avoid disruption you can import your pads to Dropbox Paper now.

Ohio Seed Law

Text of Ohio Seed Law | Text of Ohio Seed Rules

Presentation Credit: Dr. David Francis, The Ohio State University
What about RUSSL?

July 2016 RUSSL Amendment defines a term agreed upon by our working group, Non-Commercial Seed Sharing, as:

(v) “Non-commercial Seed Sharing” – means that no monetary consideration or compensation may be transferred in return for receiving seeds. Additionally, anyone distributing seeds under the rules of this definition may not expect, or create the expectation, that seeds must be returned in exchange for receiving seeds. If distribution of seeds is found to be in anticipation or connected to money paid for work or services rendered by the same person distributing seeds, such distribution shall not be considered non-commercial within these rules.

Defines “Non-commercial Seed Sharing”


Presentation Credit: Dr. David Francis, The Ohio State University
2016 RUSSL amendment adds a series of regulatory exemptions

Defines labeling requirements for seed sharing


SECTION 2B. Label and educational requirements for Non-Commercial Seed Sharing.

(A) Each container of agricultural, vegetable, and flower seeds distributed for sowing purposes in a non-commercial setting shall bear thereon or have attached thereto in a conspicuous place a plainly written or printed label or tag in the English language, conveying the following information:

(a) The name of the species or commonly accepted name of kind or kind and variety of each agricultural seed component present. Hybrids shall be labeled as hybrids.

(b) A word or statement indicating if the seed has been treated. And, if treated, must be labeled in accordance with applicable state and federal laws.

(c) Some form of reference identification that provides traceability. Retention of posterity file samples are not required.

(d) Name and city or address of the non-commercial seed sharing entity.

(e) The calendar month and year the seed was donated.

(f) The seed shall be free of foreign material, other than coatings or treatments, including germination medium, mulch, fertilizer, pre-planted containers, mats, tapes, or other planting devices.

(g) No distributed container shall hold more than eight (8) ounces of agricultural seed or four (4) ounces of vegetable or flower seed.

(h) Germination and purity analysis is not required, however if a germination or purity percentage is noted on the label, it must be noted whether or not the analysis was performed according to the AOSA rules for testing seed.

Presentation Credit: Dr. David Francis, The Ohio State University
2016 RUSSL amendment adds a series of regulatory exemptions

(B) At each location involved with non-commercial seed sharing a legible and visible sign shall state that the seeds being distributed may not meet germination or varietal purity standards prescribed by the state seed law. The sign must also state that patented seed or varieties protected by the Plant Variety Protection Act will not be accepted or distributed without permission of the certificate holder.

Defines signage and exclusion of PVP protected material


Presentation Credit: Dr. David Francis, The Ohio State University
Plant Variety Protection Act (PVP), enacted in 1970 and amended in 1994 to include potatoes and other tuber crops, PVP is a voluntary program that provides rights to breeders, developers and owners of plant varieties. The PVP gives breeders 20-25 years of exclusive control over new, distinct, uniform, and stable sexually reproduced or tuber propagated plant varieties.

From ASTA (http://www.betterseed.org/)

3 types of intellectual property protection for new plant varieties in the U.S.:

- Plant Variety Protection - seed and tubers (issued by PVPO)
- Plant Patents - asexually propagated plants except for edible tubers (issued by the Patent and Trademark Office (PTO))
- Utility Patents - for genes, traits, methods, plant parts, or varieties (issued by the PTO)
Plant Variety Protection (PVP)

- Farmers can save seed for personal use
- Farmers cannot sell seed
- No restrictions on breeding (crossing with other varieties, and selecting among progeny)

Plant Patents and Utility Patents restrict both seed saving and breeding

Photos: Mary Nally, Sonia Ivancic, David Francis
Presentation Credit: Dr. David Francis, The Ohio State University
Seed Law also mandates labeling requirements.

What’s on a label?

See “Same Seed Different Bag”
https://www.agweb.com/article/same-seed-different-bag-naa-sonja-begemann/

See module on germplasm resources

Presentation Credit: Dr. David Francis, The Ohio State University
Seed Law also mandates labeling requirements. What’s on a label?

**901:5-27-03 Labeling seed as to kind and variety.**

Seed kinds labeled with a brand name and not a variety name shall be labeled with the phrase "variety not stated." Varieties of the following kinds of seeds are generally labeled as to variety and shall be labeled as to kind and variety or, in lieu of the variety name, the phrase "variety not stated," or "VNS":

Presentation Credit: Dr. David Francis, The Ohio State University
Home Germination Tests
Seed Germination (Southern Exposure Seed Exchange)

Seed Savers Exchange

High Mowing Organic Seeds
https://www.highmowingseeds.com/blog/how-to-do-a-quick-germination-test-at-home/

Professional Guidelines

Appendix D. AOSA Rules for Testing Seeds

AOSA Rules for Testing Seeds – Section 2: Preparation of Working Samples

SECTION 2: PREPARATION OF WORKING SAMPLES

The laboratory analysis for law enforcement, labeling, and general information as to seed quality, should determine the following for the sample analyzed: (1) the purity composition, (2) the rate of occurrence of noxious-weed seeds per unit weight, and (3) the percentage germination of the pure seed under

Presentation Credit: Dr. David Francis, The Ohio State University
Germination Tests
Federal Law Sets Standards by Plant
Testing Protocols Set by Professional Organizations
§201.31 Germination standards for vegetable seeds in interstate commerce.

The following germination standards for vegetable seeds in interstate commerce, which shall be construed to include hard seed, are determined and established under section 403(c) of the act:

<table>
<thead>
<tr>
<th>Vegetable</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artichoke</td>
<td>60</td>
</tr>
<tr>
<td>Asparagus</td>
<td>70</td>
</tr>
<tr>
<td>Asparagus bean</td>
<td>75</td>
</tr>
<tr>
<td>Bean, garden</td>
<td>70</td>
</tr>
<tr>
<td>Bean, lima</td>
<td>70</td>
</tr>
<tr>
<td>Bean, runner</td>
<td>75</td>
</tr>
<tr>
<td>Beet</td>
<td>65</td>
</tr>
<tr>
<td>Broadbean</td>
<td>75</td>
</tr>
<tr>
<td>Broccoli</td>
<td>75</td>
</tr>
<tr>
<td>Brussels sprouts</td>
<td>70</td>
</tr>
<tr>
<td>Burdock, great</td>
<td>60</td>
</tr>
<tr>
<td>Cabbage</td>
<td>75</td>
</tr>
<tr>
<td>Cabbage, tronchuda</td>
<td>70</td>
</tr>
<tr>
<td>Cardoon</td>
<td>60</td>
</tr>
<tr>
<td>Carrot</td>
<td>55</td>
</tr>
<tr>
<td>Cauliflower</td>
<td>75</td>
</tr>
<tr>
<td>Celeriac</td>
<td>55</td>
</tr>
<tr>
<td>Celery</td>
<td>55</td>
</tr>
<tr>
<td>Chard, Swiss</td>
<td>65</td>
</tr>
<tr>
<td>Chicory</td>
<td>65</td>
</tr>
<tr>
<td>Chinese cabbage</td>
<td>75</td>
</tr>
<tr>
<td>Chives</td>
<td>50</td>
</tr>
<tr>
<td>Citron</td>
<td>65</td>
</tr>
<tr>
<td>Collards</td>
<td>80</td>
</tr>
<tr>
<td>Corn, sweet</td>
<td>75</td>
</tr>
<tr>
<td>Corncob</td>
<td>75</td>
</tr>
<tr>
<td>Cowpea</td>
<td>75</td>
</tr>
<tr>
<td>Cress, garden</td>
<td>75</td>
</tr>
<tr>
<td>Cress, upland</td>
<td>60</td>
</tr>
<tr>
<td>Cress, water</td>
<td>40</td>
</tr>
<tr>
<td>Cucumber</td>
<td>80</td>
</tr>
</tbody>
</table>

https://www.ams.usda.gov/rules-regulations/fsa

Presentation Credit: Dr. David Francis, The Ohio State University
Seed Storage

Cool, dry, protect from insects and rodents
(desiccant, moth balls or no-pest strip)

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Germination test date requirements:

Ohio 9 Mo at retail, 36 Mo if hermetically sealed
Seed Resources

Association of Official Seed Analysts (AOSA)
http://www.analyzeseeds.com/

International Seed testing Association (ISTA)

American Seed Trade Association (ASTA)
http://www.betterseed.org/resources/seed-testing-accreditation-schemes/

ASTA information on seed law

Ohio Seed law
Chapter 907: Agricultural Seed
http://codes.ohio.gov/orc/907

Seed and Seed Quality (NC State Extension)
https://content.ces.ncsu.edu/seed-and-seed-quality

Swapping Seeds? There’s a law for that.

Same Seed Different Bag
https://www.agweb.com/article/same-seed-different-bag-naa-sonja-begemann/

Presentation Credit: Dr. David Francis, The Ohio State University
Take home messages--

• Seed laws exist to protect the user and inventor

  Seed laws exist to reduce the spread of weed seed and pathogens

• It may be necessary to amend Ohio seed law to recognize seed sharing and seed exchanges

• Seed exchanges should pay attention to labeling and signage suggestions in the 2016 RUSSL amendment

• Germination tests and proper storage can insure quality seed

Presentation Credit: Dr. David Francis, The Ohio State University
Your thoughts or questions?