



**PennState Law**

Center for Agricultural  
and Shale Law

PENNSYLVANIA DEPARTMENT OF AGRICULTURE  AGRICULTURAL BUSINESS DEVELOPMENT CENTER  
*Understanding Agricultural Law Webinar Series*

# ***Understanding Agricultural Law***

## **Webinar Series**

*Understanding the Basics of*

# **Understanding the Basics of Federal and State Seed Laws**

**October 27, 2023**





# Federal & PA Seed Laws

- Federal
  - U.S. Patent Law
  - Federal Seed Act (FSA)
  - Plant Variety Protection Act (PVPA)
- State
  - Pennsylvania Seed Act (PSA)





# Federal & PA Seed Laws



- Federal
  - Patents:
    - Plant Patents: <https://uscode.house.gov/view.xhtml?path=/prelim@title35/part2/chapter15&edition=prelim>
    - Utility Patents: <https://law.justia.com/codes/us/2021/title-35/part-ii/chapter-10/sec-101/>
  - Federal Seed Act (FSA)
    - <https://www.ams.usda.gov/sites/default/files/media/Federal%20Seed%20Act.pdf>
  - Plant Variety Protection Act (PVPA)
    - <https://uscode.house.gov/view.xhtml?path=/prelim@title7/chapter57&edition=prelim>
- State
  - Pennsylvania Seed Act (PSA)
    - <https://www.legis.state.pa.us/cfdocs/legis/LI/uconsCheck.cfm?txtType=HTM&yr=2004&sessInd=0&smthLwInd=0&act=0164>



# What do seed laws do?

1. Provides legal protection to businesses/companies who create/develop new seeds (intellectual property protections)
  - Why do we need this?
    - For both GMO crops and conventional breeding
    - USDA:
      - The development of new and improved plant varieties is necessary to “promote agriculture production and food security for an increasing world population.”



# What do seed laws do?

## 2. Require seeds to be tested

- Ensures "good" seeds
- Avoids the spreading of invasive species
- Prevents environmental problems



# Who do seed laws apply to?

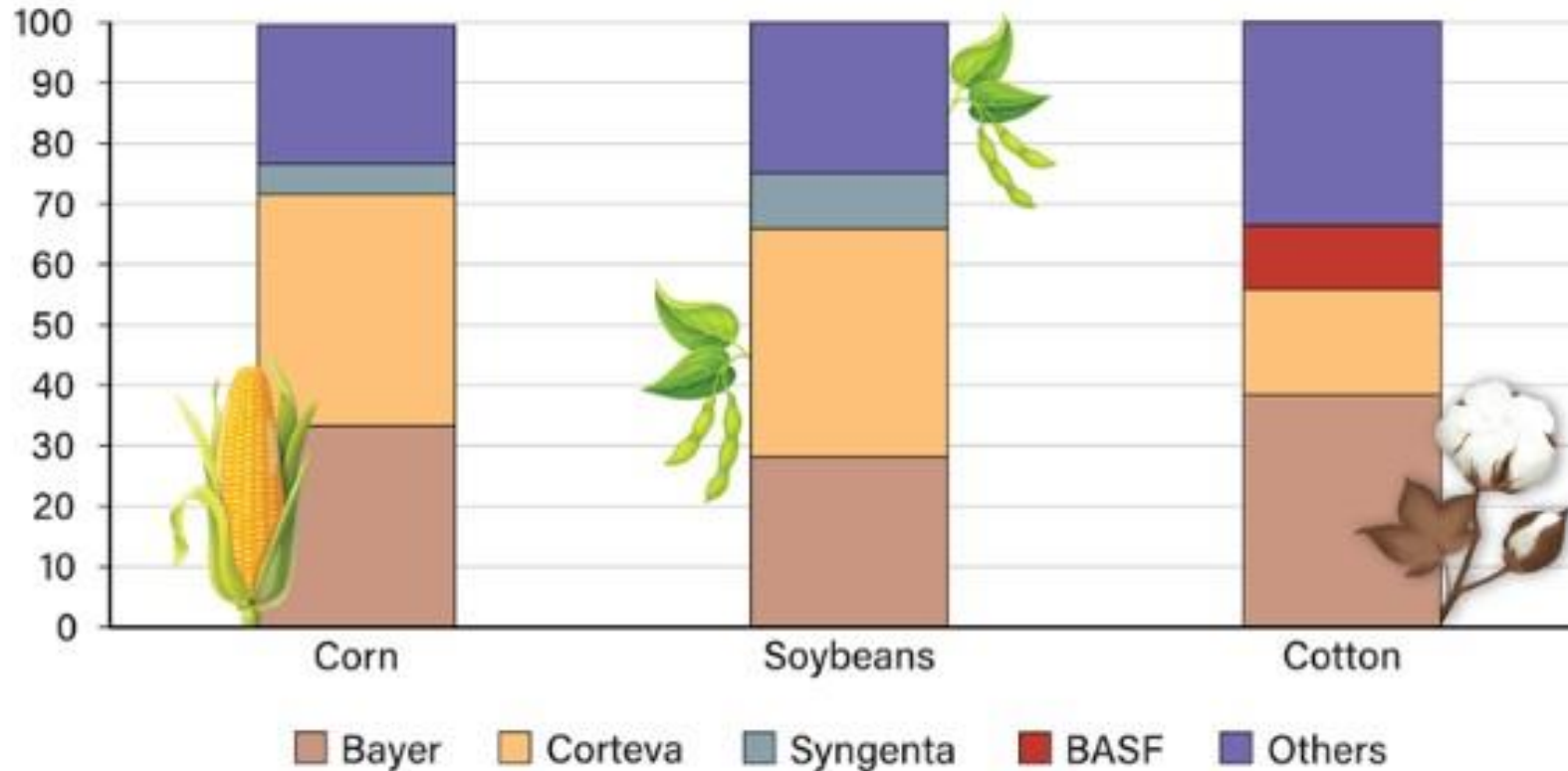
- Farmers
- Landowners
- Large seed companies

## Market shares for U.S. corn, soybean, and cotton retail seed, 2018-20



Economic Research Service  
U.S. DEPARTMENT OF AGRICULTURE

Percent



Source: USDA, Economic Research Service (ERS) using data from RAND Journal of Economics (2019) based on proprietary GfK Kynetec data (2000-11) and Farm Journal (2012-17), and USDA, Agricultural Marketing Service, Cotton Varieties Planted, Annual Bulletins.

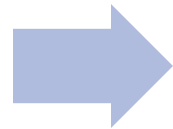




# Federal Legal Timeline

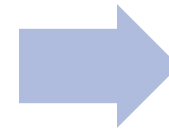
1930

- Plant Patent Act



1939

- Federal Seed Act



1970

- Plant Variety Protection Act





# Plant Patent Act

- Passed in 1930
- Allowed patents for asexually reproducing plants
  - Plant offspring are genetically identical to parent plant
  - Plants that reproduce by budding, grafting, cutting
  - Examples: strawberries, dandelions, blackberries, ferns
- Excludes tubers



# Plant Patents—GMOs

- *Diamond v. Chakrabarty*, 447 U.S. 303 (1980)
- The Court determined that micro-organisms are patentable subject material
  - Allows genetically modified plants to be patented



# U.S. Patent Law

- **Plant Patents** 35 U.S.C. § 161
  - Issued by the Patent and Trademark Office
  - Can be applied to asexually propagated plants (except for edible tubers)
  - A plant patent precludes others from reproducing the patented plant
  - Lasts 20 years



# U.S. Patent Law

- **Plant Patents** 35 U.S.C. § 161
  - “...plant seedlings, discovered, propagated asexually, and proved to have new characteristics distinct from other known plants are patentable.”



# U.S. Patent Law

- **Utility Patents** 35 U.S.C. § 101
  - Issued by the Patent and Trademark Office
  - Can be applied to asexually or sexually reproducing plants
  - Precludes others from reproducing plants, or planting/selling the harvested (saved) seeds
  - Lasts 20 years



# Utility Patents—Example

- Seed Company Example: Monsanto (Bayer)
  - Monsanto's Roundup Ready Soybeans
  - “Growers who wish to purchase or use Monsanto's patented seeds must have a signed and valid Monsanto/Stewardship agreement”





# Utility Patents—Example

- Seed Company Example: Monsanto
  - “We do not exercise our patent rights where trace amounts of our patented seeds or traits are present in a farmer’s fields as a result of inadvertent means”

—Monsanto







# Utility Patents—Example

- Seed Company Example: Monsanto
- *Monsanto Canada v. Schmeiser*
  - Roundup Ready Canola seeds
  - 95–98% field purity
  - Ruled in favor of Monsanto





# Utility Patents

- Seed Company Example: Monsanto
  - 147 lawsuits filed since 1997
  - 9 to full trial
  - 100% in favor of Monsanto





# Patents—case law

- *Organic Seed Growers & Trade Ass'n v. Monsanto*, F.Supp.2d544 (2011)
  - Tried to sue Monsanto before Monsanto could sue them for patent infringement
  - No actual injury so the court dismissed the case



# Federal Seed Act

- 7 U.S.C. § 1551–1611
- Passed by Congress in 1939
- Regulates seeds in interstate and foreign commerce
- Purpose: prevent seed misrepresentation





# Federal Seed Act

- Establishes label requirements
  - Label must state that the specific seed variety or class
- Requires certification from a seed certifying agency



# How are seeds certified?



- Find a seed certifying agency:
  - The Association of Official Seed Certifying Agencies
  - <https://www.aosca.org/>
- Pennsylvania certification
  - Pennsylvania Department of Agriculture
  - [https://www.agriculture.pa.gov/Plants\\_Land\\_Water/PlantIndustry/agronomic-products/Seed/Pages/default.aspx](https://www.agriculture.pa.gov/Plants_Land_Water/PlantIndustry/agronomic-products/Seed/Pages/default.aspx)



# Federal Seed Act

- Establishes record-keeping requirement
  - Applies to transportation and delivery
  - Vegetable or agricultural seeds
  - Interstate commerce
- Persons involved in transportation must maintain records
  - Origin, treatment, germination of seeds
  - For vegetable seeds: records relating to variety
  - For ag seeds: records relating to purity





# Federal Seed Act

- States agree to:
  - “sample seed lots traded within their jurisdictions,
  - test seed lots for compliance with FSA, and
  - submit samples suspected of violating the FSA to SRTD for investigation.”

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

<https://www.ams.usda.gov/services/seed-testing>



# Federal Seed Act

- Agricultural Marketing Service (AMS) is responsible for:
  - “authorizing State officials to draw samples, securing information and records, and inspecting seed lots that are subject to FSA within the State,
  - issuing written notices or warnings to persons involved in minor violations of the Act,”



# Federal Seed Act

- Agricultural Marketing Service, responsible for:
  - initiating any required administrative or judicial proceedings under the Act or the regulations that are warranted following the SRTD investigation for serious violations; and
  - training State regulatory officials and scientists to conduct seed testing, inspecting, and sampling, required within the USDA AMS cooperative agreement.



# Federal Seed Act

- Title V
  - Provides for government enforcement
  - Enforced by PA seed program
    - Violations reported to USDA
    - Notice of warning letters
    - Civil or criminal penalties



# Plant Variety Protection Act (PVPA)



- Administered by the USDA
- Original Act:
  - Provides property rights to breeders of plants that are sexually produced (by seed)
- 1994 Amendment
  - Added protection for tubers (potatoes)
- 2018 Farm Bill Update:
  - Added protection to asexually propagated plants (grafts, cuttings, etc.)



# Plant Variety Protection Act (PVPA)



- § 97.1 General. Certificates of protection are issued by the Plant Variety Protection office for new, distinct, uniform, and stable varieties of **sexually reproduced, tuber propagated, or asexually reproduced plants**. Each certificate of plant variety protection certifies that the breeder has the right, during the term of the protection, to prevent others from selling the variety, offering it for sale, reproducing it, importing or exporting it, conditioning it, stocking it, or using it in producing a hybrid or different variety from it, as provided by the Act.



# Plant Variety Protection Act (PVPA)

- The breeder of any plant variety is entitled to plant variety protection so long as the variety is
  - **New**—the variety has not been sold in the U.S. for more than 1 year or sold outside the U.S. for more than 4 years)
  - **Distinct**—the variety must be clearly distinguishable from any “common knowledge” variety
  - **Uniform**—variations can be described, predicted, and are commercially acceptable
  - **Stable**—the variety when reproduced will remain unchanged in the essential and distinctive characteristics





# Plant Variety Protection Act (PVPA)

- Issued by the Plant Variety Protection Office
- Protects the sale, purchase, offer, delivery, or exchange of certified seeds
- 20-year certificate



# Plant Variety Protection Act

- **Limited Exception**
  - Farmers may save seeds for themselves
  - If seeds are saved for the farmer, but the farmer's plans change, the farmer may sell the seeds



# Plant Variety Protection Act

- Limited Exception
  - The limited exception is confusing
  - *Asgrow Seed v. Winterboer* (U.S. Sup. Ct. 1995)
    - Large portion of business was “brown bag” sales
    - Planted 265 acres and sold enough seed to plant 10,000 acres
    - Court rejected claim of exemption





# Plant Variety Protection Act

- Violations May Include
  - Sell standing crop for buyer to save the seed
  - Brown bag sales
  - Trading seed
  - Gifting seed
  - Sale of seed for use as cover crop





# Ongoing PVPA Lawsuits

- *Corteva Agriscience LLC, et al. v. Inari Agriculture* (Case 1:23-cv-01059-RGA)
- Complaint filed September 27, 2023
- Alleges that Inari Agriculture acquired Corteva's protected seeds, made "slight genetic modifications to those seeds," and now seeks to patent those modifications
- Corteva claims their seeds have PVPA protection

<https://nationalaglawcenter.org/wp-content/uploads/2023/10/Corteva-v-Inari-complaint-filed-9.27.23.pdf>



# Pennsylvania Seed Act

- Act 164
  - All seeds in PA are regulated by the PA Seed Act
  - All seeds sold in PA must be tested according to the “AOSA Rules for Testing Seeds”
    - The seed may be tested at any private or state lab that uses the AOSA rules



[https://www.agriculture.pa.gov/Plants\\_Land\\_Water/PlantIndustry/agronomic-products/Seed/Pages/default.aspx#:~:text=The%20seed%20program%20administers%20the,Pennsylvania%20Consolidated%20Statutes%2C%20Chapter%2071.](https://www.agriculture.pa.gov/Plants_Land_Water/PlantIndustry/agronomic-products/Seed/Pages/default.aspx#:~:text=The%20seed%20program%20administers%20the,Pennsylvania%20Consolidated%20Statutes%2C%20Chapter%2071.)



# Pennsylvania Seed Act

- Association of Official Seed Analysts (AOSA)
- <https://www.analyzeseeds.com/about-us/>
  - Organization of member laboratories
    - Includes state, federal, & university labs
  - Research & education
  - Develop rules and standard procedures for seed testing
    - (compliance with Federal Seed Act)





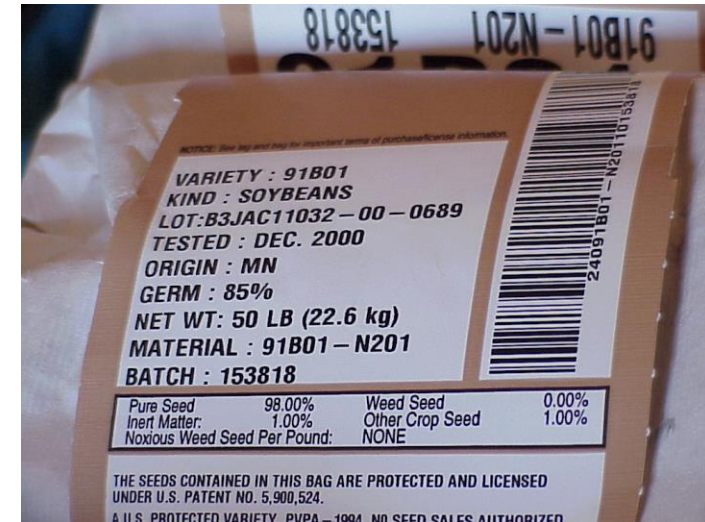
# Pennsylvania Seed Act

- Association of Official Seed Analysts (AOSA)
  - does **not** administer seed certification for crops



# Pennsylvania Seed Act

- Act 164
  - All seed distributors must obtain an annual license (\$25/year)
  - All containers of seed must contain label
    - Legible
    - English language
    - Conspicuous





# Pennsylvania Seed Act

- Basic Labeling Requirements (all seeds)
  - Name/ Address of distributor
  - Treatment statement
  - No false or misleading labeling
  - Records and file sample of tested seeds must be kept for 2 years



# Pennsylvania Seed Act

- Agricultural Seed requirements:
  - Accepted name of kind and variety
  - Mixtures:
    - Must be labeled with the word "mixture," "mix," or "blend"
    - Components of 5% or more must be listed in order of magnitude
  - The listed seed percentage must total 100%
  - Weed seed limit: 1%



# Pennsylvania Seed Act

- Agricultural Seed requirements (continued)
  - Lot number
  - Origin of all certified seed and of “...alfalfa, birdsfoot trefoil, red and white clover, field corn (except hybrids)”



# Pennsylvania Seed Act

- Agricultural Seed requirements (continued)
  - Name & number of restricted noxious weed seeds
  - Germination percentage, hard seed, and date of test



# Pennsylvania Seed Act

- Specific Labeling Requirements
  - Tree & shrub seeds
  - Vegetable & herb seeds
  - Flower seeds
  - Lawn or turf seeds and mixture







# Pennsylvania Seed Act

- Maintaining Records
  - Seed distributor must maintain record of each lot of seed handled—2 years
  - Must have records available to Dept. of Ag.





# Pennsylvania Seed Act

- Enforcement
  - State Agronomic Product Inspectors are instructed to pursue all “brown bag” seed sales
  - Non-compliant seed is placed under Stop Sale Order
  - Collect samples for weed seed testing to check for compliance with PA Feed Act and PA Plant Protection Act





# What is a brown bag seed?

- "Brown bag" seed is seed that has not been tested/certified or properly labeled
  - PA Dept of Ag:
    - Risk to ecosystem
    - Potential lower germination rates
    - Lack of purity
    - Difficult to control weeds



# Pennsylvania Seed Act

- Civil Penalties
  - Up to \$2,500 for each violation





# Pennsylvania Seed Act

- Criminal Penalties
  - First offense:
    - \$50–\$100 fine
    - Up to 90 days imprisonment
  - Second offense (within 3 years)
    - \$500–\$1,000
    - Up to 2 years imprisonment





# Pennsylvania Seed Act

- Exceptions—Seed Libraries
  - Seed libraries and other non-commercial seed exchanges are not subject to the PSA
    - So long as they do not sell, offer for sale, or expose for sale
- Confirmed by PDA in 2016







# Pennsylvania Seed Act

- Exceptions—Seed Libraries
  - Department of Ag Protocol
    - Library procures licensed & labeled seed to give away
    - Members check out seeds from library
    - Members grow the plants & harvest new seeds
    - Library acts as meeting place for seed swap/trade
    - Each year library starts with "fresh" seeds



**pennsylvania**  
DEPARTMENT OF AGRICULTURE

[https://www.agriculture.pa.gov/Plants\\_Land\\_Water/PlantIndustry/agronomic-products/Seed/Documents/Seed%20Library%20Protocol%2007-17-14.pdf](https://www.agriculture.pa.gov/Plants_Land_Water/PlantIndustry/agronomic-products/Seed/Documents/Seed%20Library%20Protocol%2007-17-14.pdf)





# States with Seed Library Exemptions

- Nebraska (2015)
- Minnesota (2015)
- California (2016)
- Illinois (2016)
- Alaska (2018)
- Ohio



# Conclusion

- Key Points
  - Patents: prevent the sale or planting of harvested seeds
  - Fed Seed Act: regulates interstate sale of seeds—must be certified
  - PVPA: a farmer may only save seeds for replanting on own acreage
  - PSA: all seeds sold must be labeled

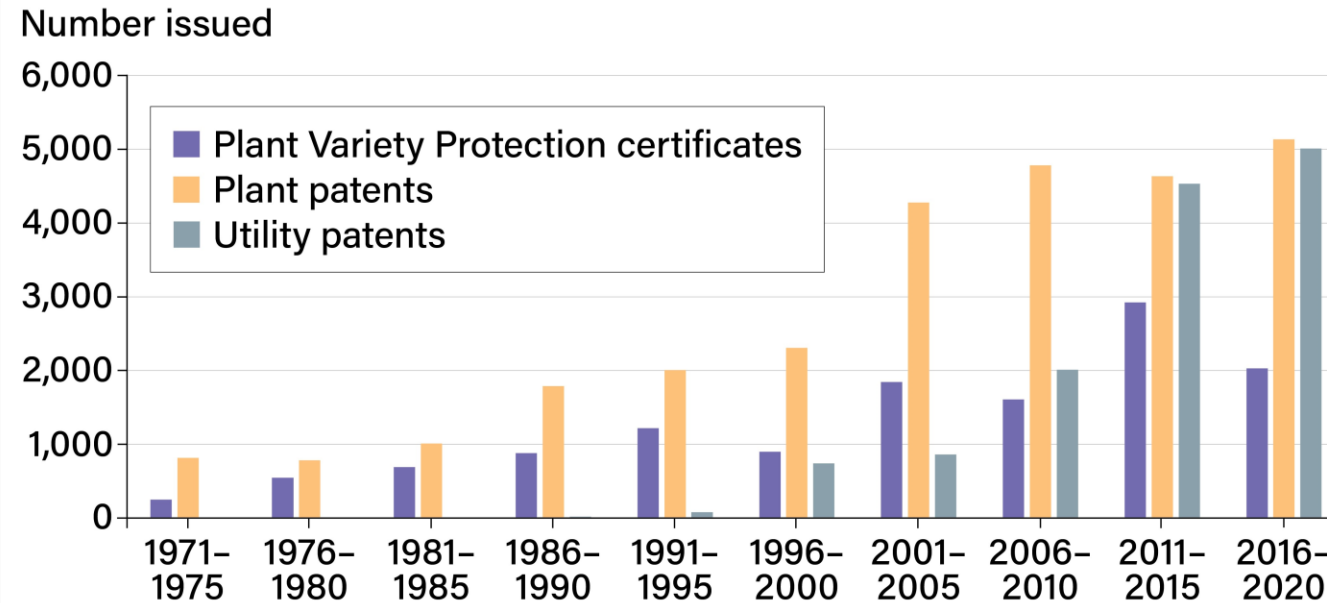


# Conclusion

- How to Avoid Legal Repercussions
  - Do not save seeds unless you know you are permitted to do so
  - Only purchase properly labeled seeds from licensed distributor
  - Do not sell seeds unless you are a licensed distributor



## Issuances of intellectual property rights for new crop varieties increased from 1971 to 2020



Note: **Plant Variety Protection certificates** are issued by USDA, Agricultural Marketing Service as part of the 1970 Plant Variety Protection Act. They protect new varieties of seed crops and potatoes but contain exemptions for farmers and other seed breeders to reuse the new seed varieties. **Plant patents** are issued by the U.S. Patent and Trade Office specifically for self-propagating plants (other than potatoes) such as flowers, ornamentals, and some tree crops. **Utility patents** include patents issued for new crop varieties, cultivated plants, hybrids, inbreds, and breeding lines. The patents do not contain exemptions for reuse by farmers and other seed breeders.

Source: USDA, Economic Research Service using patent data from the U.S. Patent and Trademark Office and Plant Variety Protection certificate data from the USDA, Agricultural Marketing Service.



## In the news...

- July 9, 2021—President Biden issues Executive Order titled “Promoting Competition in the American Economy”
- March 2023—USDA Agricultural Marketing Service prepares “More and Better Choices for Farmers: Promoting Fair Competition and Innovation in Seeds and Other Agricultural Inputs”

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

<https://www.ams.usda.gov/sites/default/files/media/SeedsReport.pdf>



# USDA AMS—March 2023 Report

- 2023 Report Action Items
  - Farmer Seed Liaison—“[will]...coordinate information sharing and reduce confusion for all parties to successfully operate in a complex seed system.”
  - USDA and the U.S. Patent and Trademark Office (USPTO) will form a Working Group on IP & Competition in Seeds and Other Agricultural Inputs—“...to promote fair competition in the seed market.”
  - “AMS issued a Notice to Trade regarding compliance with disclosing the kind and variety under the Federal Seed Act.”





# Other Seed Law Issues

## **“Treated Seeds” or pesticide-coated seed**

- Pesticides are regulated under FIFRA
- Pesticide-coated seeds are exempt from FIFRA
- Complaint filed by Center for Food Safety
  - May 31, 2023
  - Alleges this exemption violates FIFRA and Administrative Procedure Act

*Ctr. for Food Safety v. U.S. Env'tl. Protection Agency*, No. 3:23-cv-02714 (N.D. Cal. 2023)

[https://www.centerforfoodsafety.org/files/2023-05-31-complaint\\_85005.pdf](https://www.centerforfoodsafety.org/files/2023-05-31-complaint_85005.pdf)





# Thank you!

## Understanding Agricultural Law Series Upcoming Topics:

**Nov. 17, 2023** *Understanding the Basics of The Fair Labor Standards Act*

**Dec. 15, 2023** *Understanding the Basics of The Perishable Agricultural Commodities Act*

**Jan. 26, 2023** *Understanding the Basics of Food Labeling*

Register at

<https://aglaw.psu.edu/events/>

### **CENTER MISSION AND BACKGROUND**

Center programs are funded in part by the Commonwealth of Pennsylvania through the Pennsylvania Department of Agriculture. The Center for Agricultural and Shale Law is a partner of the National Agricultural Law Center (NALC) at the University of Arkansas System Division of Agriculture, which serves as the nation's leading source of agricultural and food law research and information.

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