

The Political Seedscape

What's Going On and What We Can Do About It

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Definition of Terms: Breeding

Open Pollinated

- imitation of nature - uncontrolled pollination
- homozygous population
- offspring functionally identical to parents - impossible to separate access to plant and access to seed
- Plant Variety Protection Act of 1970

Hybrid (developed in 1918)

- mechanical crossing of dissimilar parents
- homozygous parents yield heterozygous offspring
- offspring of offspring random - parent lines trade secret - parent lines often agriculturally useless

Molecular Breeding (begin 1983)

- application of modern biotech and genetic science to breeding
- QTL mapping or gene discovery, marker assisted selection and genomic selection, genetic transformation, and **genetic engineering**

Genetic Engineering

- Diamond v Chakrabarty
- transgenic seeds: incorporation of genes from different species - entirely novel
- \$50 million average development cost

Definition of Terms: Farming

- USDA Organic Standard
- conventional
- “Natural” doesn’t mean one damn thang
- Biodynamic Demeter Certified
- Certified Naturally Grown

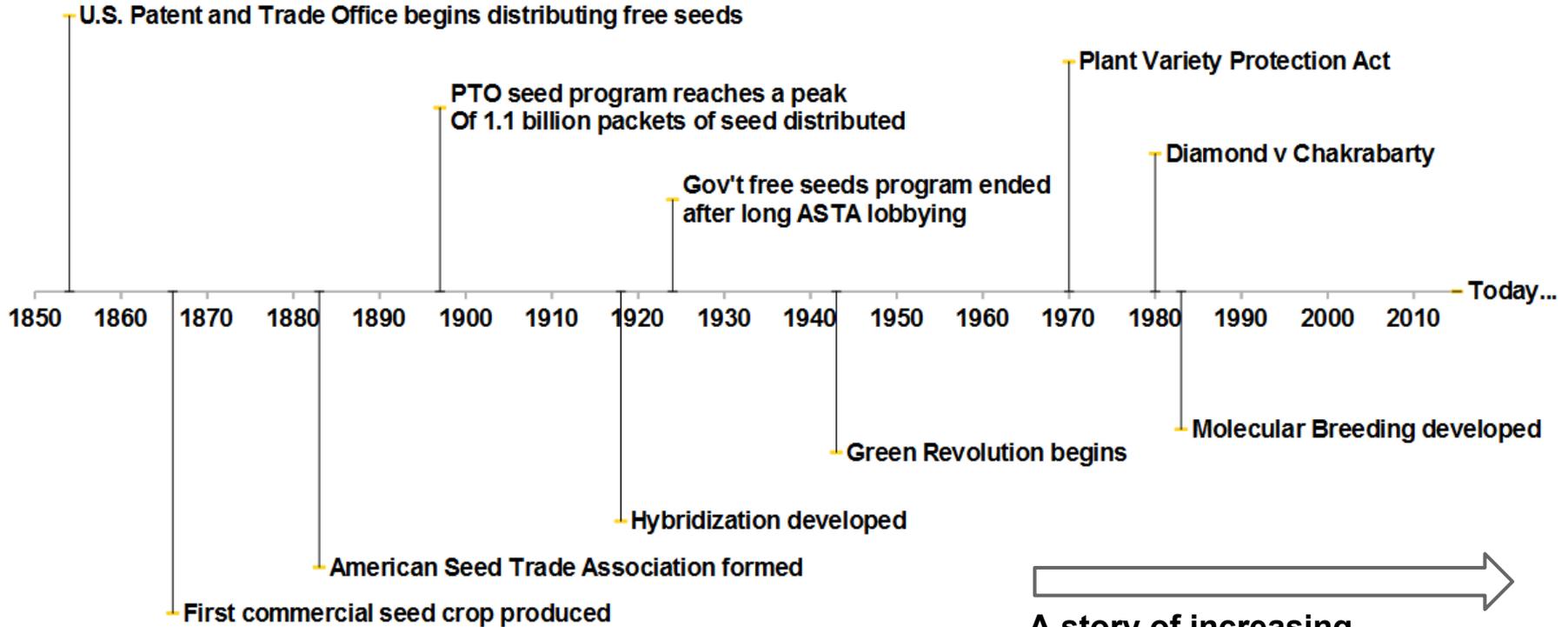


Crash Course on Seed Saving

1. Know your seed (OP or hybrid?)
2. Know your plant
 - a. Self-Pollinated vs Out-Crossing
 - b. Wind pollinated vs Insect pollinated (vs vegetative propagation)
 - c. Population size
 - d. Isolation by space, time, or barrier
3. Know your aim
 - a. Roguing and Selecting
4. Harvest, cure, label
5. Seed saving vs seed breeding



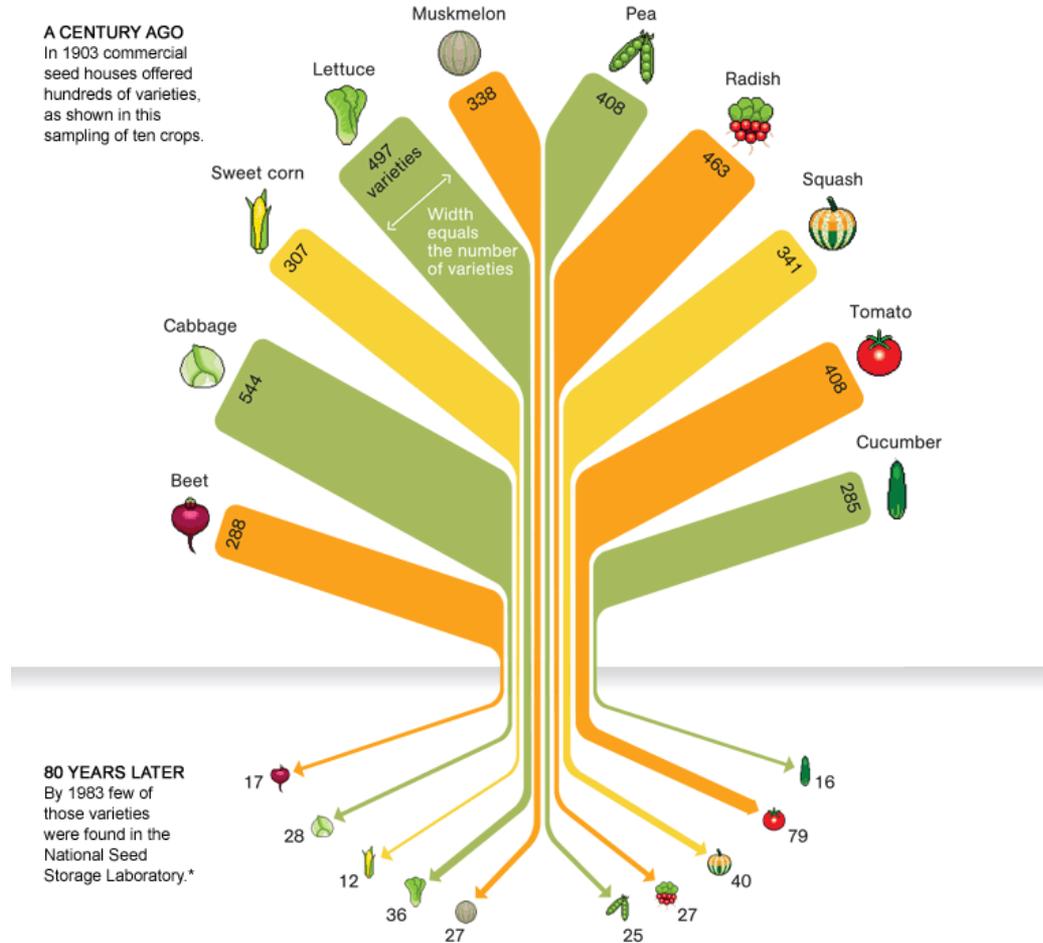
A Brief History of Seeds: The USA




**A story of increasing
privatization and consolidation.**

Loss of diversity in the commercial seed market (1903 to 1983)

A CENTURY AGO
 In 1903 commercial seed houses offered hundreds of varieties, as shown in this sampling of ten crops.



80 YEARS LATER
 By 1983 few of those varieties were found in the National Seed Storage Laboratory.*

* CHANGED ITS NAME IN 2001 TO THE NATIONAL CENTER FOR GENETIC RESOURCES PRESERVATION

JOHN TOMANIO, NGM STAFF. FOOD ICONS: QUICKHONEY
 SOURCE: RURAL ADVANCEMENT FOUNDATION INTERNATIONAL

GMO Labeling and Anti-GMO Activism

- Update on the national labeling status of states
 - ME, VT, CT, WA, CA, MD
- Current GMOs on the market (food and fiber) - Corn, Soy, Canola, Sugar Beet, Cotton, Papaya, Yellow squash, Apples, Potatoes
- Safe and Accurate Food Labeling proposed legislation known by critics as the DARK act (Denying Americans the Right to Know)
- What is needed to propose GMO labeling legislation- County, state and national approaches



*Need both policy and grassroots approaches

Why Should We Care?

- Heirlooms
 - taste, culture, history
- Locally/regionally adapted seed
 - resilient local food system
- Democracy
 - independence from corporations
 - seed sovereignty locally and globally
- Food security
 - risks from lack of diversity
 - uncertainty of a changing world
 - vertical vs horizontal resistance
 - human health
 - environmental health



What now must we do?

Oppositional Suggestions...

- Join or start local, regional or national GMO labeling/banning initiatives
- Petitions to get labeling onto the ballot
- Lobby elected officials
- Organize boycotts

Creating the New Suggestions...

- Start up local and regional or national grassroots advocacy groups (or join existing ones)
- Start seed saving in the city and start seed saving farms
- Research test plots
- Unite with other movements- form coalitions throughout environmental, labor, civil and social justice movements
- Start and participate in seed libraries/seed swaps
- Teach about seeds, write seed saving curriculum
- Utilize community garden spaces for edu, culturally important seeds, or growing out seeds for a purpose

Break out!

