

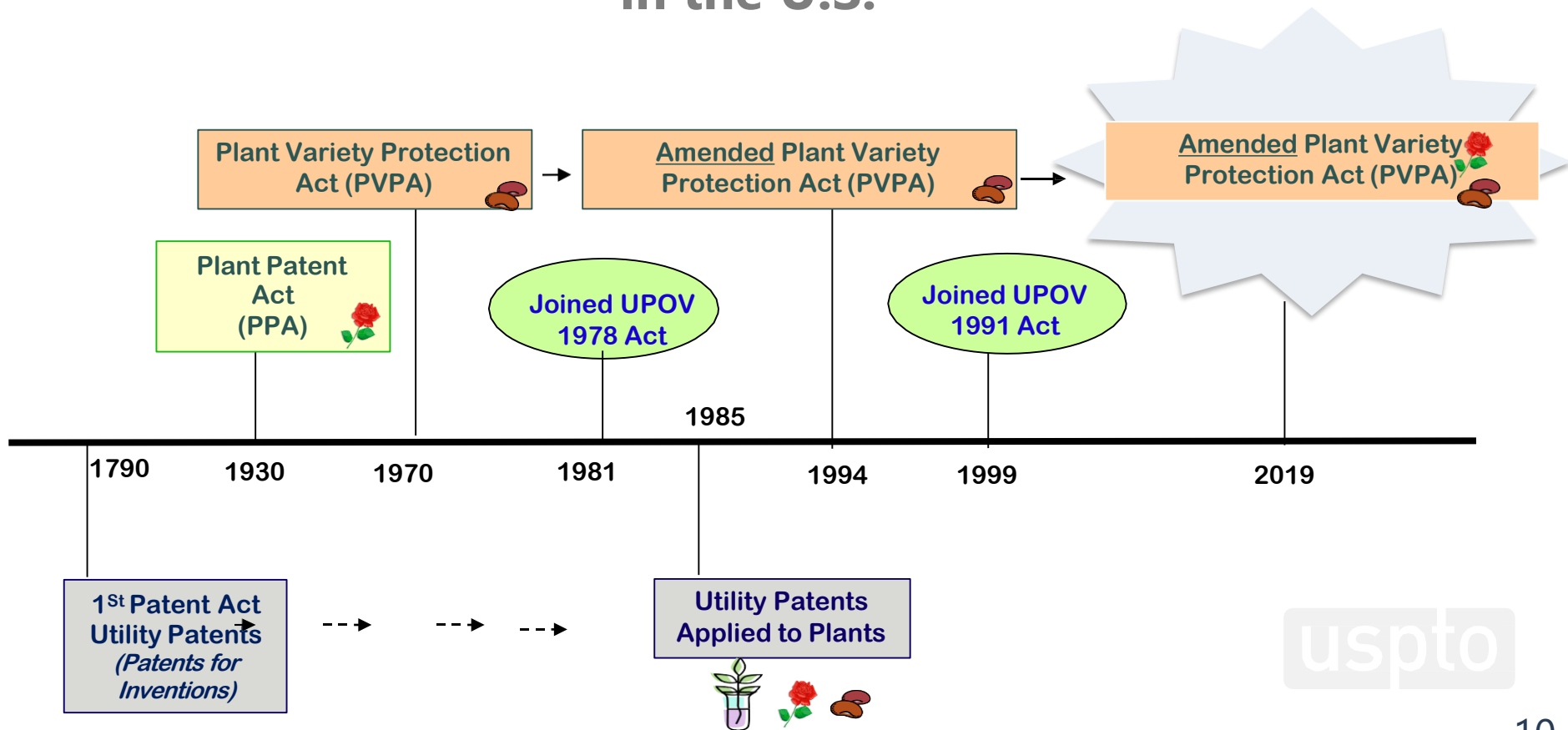
Intellectual Property System for Protection of New Plant Varieties in the United States

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UNITED STATES
PATENT AND TRADEMARK OFFICE



Development of Plant Variety Protection System in the U.S.



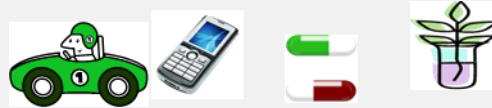
IP Protection for Plant-related Inventions in the U.S.

- **Utility Patent**
 - 35 U.S.C. §§ 101 et. seq. (102, 103, 112)
- **Plant Patent**
 - 35 U.S.C. §§ 161-164
- **Plant Variety Protection Act**
 - 7 U.S.C. §§ 2321 et seq.
- **Trade Secret Law**
 - 18 U.S.C. § 1836(b)

IP Protection for Plant-related Inventions in the U.S.

U.S. Patent and Trademark Office (USPTO)

Utility Patent



- All technologies
 - Plant-related inventions
 - Plant varieties, plant parts
 - Breeding methods
 - Modified plant extracts
 - Modified plant genes

Plant Patent (PPA)



- Asexually reproduced plants

USDA-Plant Variety Protection Office (PVPO)

Plant Variety Protection Certificate (PVPA)

All Plants

- Seed reproduced varieties
- Edible tubers
- Asexually reproduced plants* (2020)



PATENTS

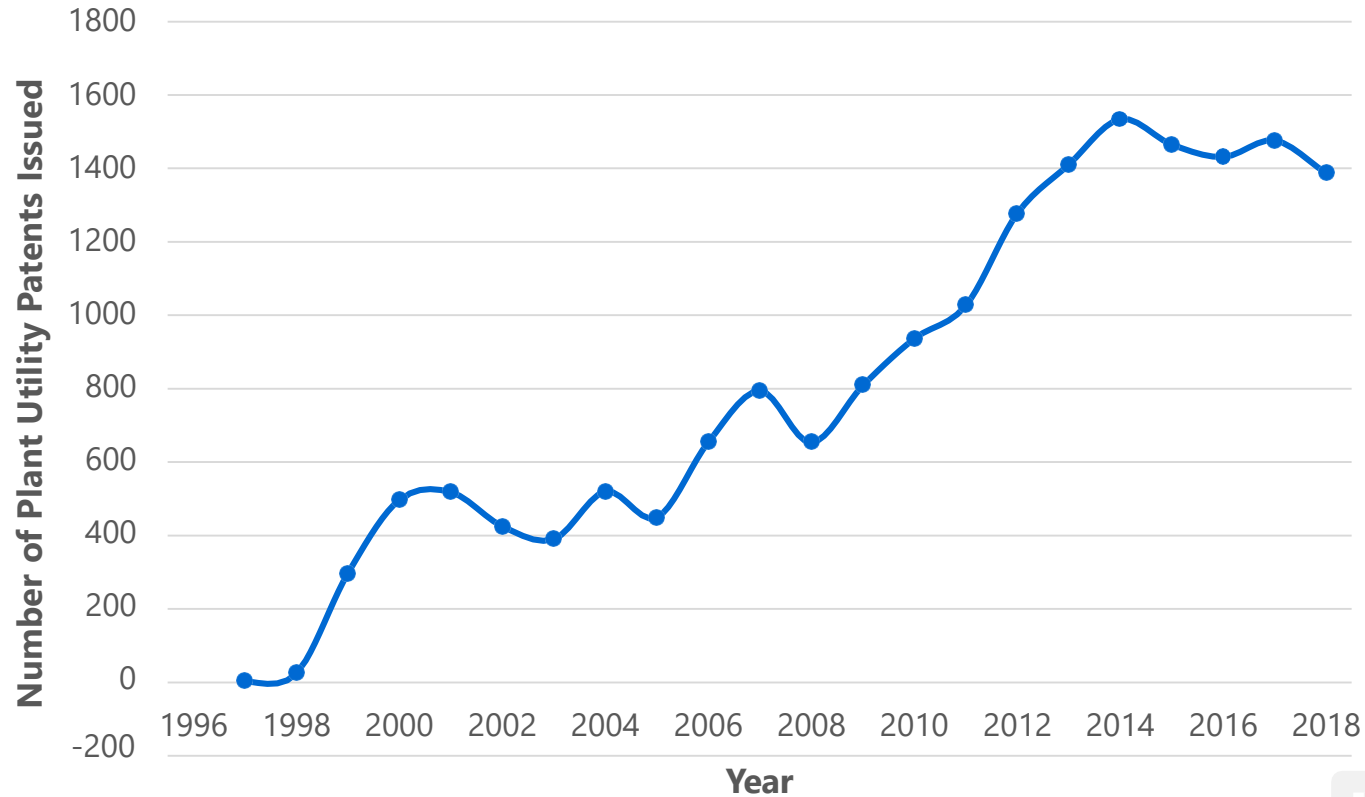
Utility Patents

- **Basic Requirements**
 - Utility
 - Novelty
 - Non-obviousness
 - Written Description
 - Enablement
 - Definiteness
- **Protection Term: 20 years from filing date**
- **Right to exclude others from making, using, selling, offering for sale, and importing the claimed invention**

Utility patent protection for plants

- **Can be used to protect:**
 - Modified plant genes, proteins, products
 - Transgenic plants phenotype (i.e., observable characteristics)
 - Class of varieties with specific traits
 - **Plant variety**
 - Plant parts – cells, tissues, etc.
 - Methods of producing or using plants/varieties

Utility Patents-Plant-related Inventions



Note: Data above was obtained from the USPTO's PALM system, and reflects plant utility patents issued during these years for the following USPC class and subclasses:

- 435/410-431, 453, 468-470
- 800/260-323.3



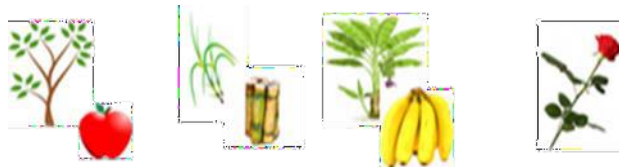
Plant Patent

Basic Requirements

- Plant is new and distinct from other known varieties
- Plant has been asexually propagated
- Basic patentability standards
 - Novelty
 - Utility
 - Non-obviousness
 - Written Description

Plant Patent

- Term: 20 years from date of filing
- Right to exclude others from making, using, selling, offering for sale and importing the plant, or any of its parts
- Protects a single plant and its asexual progeny



Plant Variety Protection

7 USC 2402. Right to plant variety protection; plant varieties protectable

(a) In general

The breeder of any sexually reproduced, **tuber propagated, or asexually reproduced** plant variety (other than fungi or bacteria) who has so reproduced the variety, or the successor in interest of the breeder, shall be entitled to plant variety protection for the variety, subject to the conditions and requirements of this chapter, if the variety is-

- (1) new,.....
- (2) distinct,
- (3) uniform,.....; and
- (4) stable,..... .

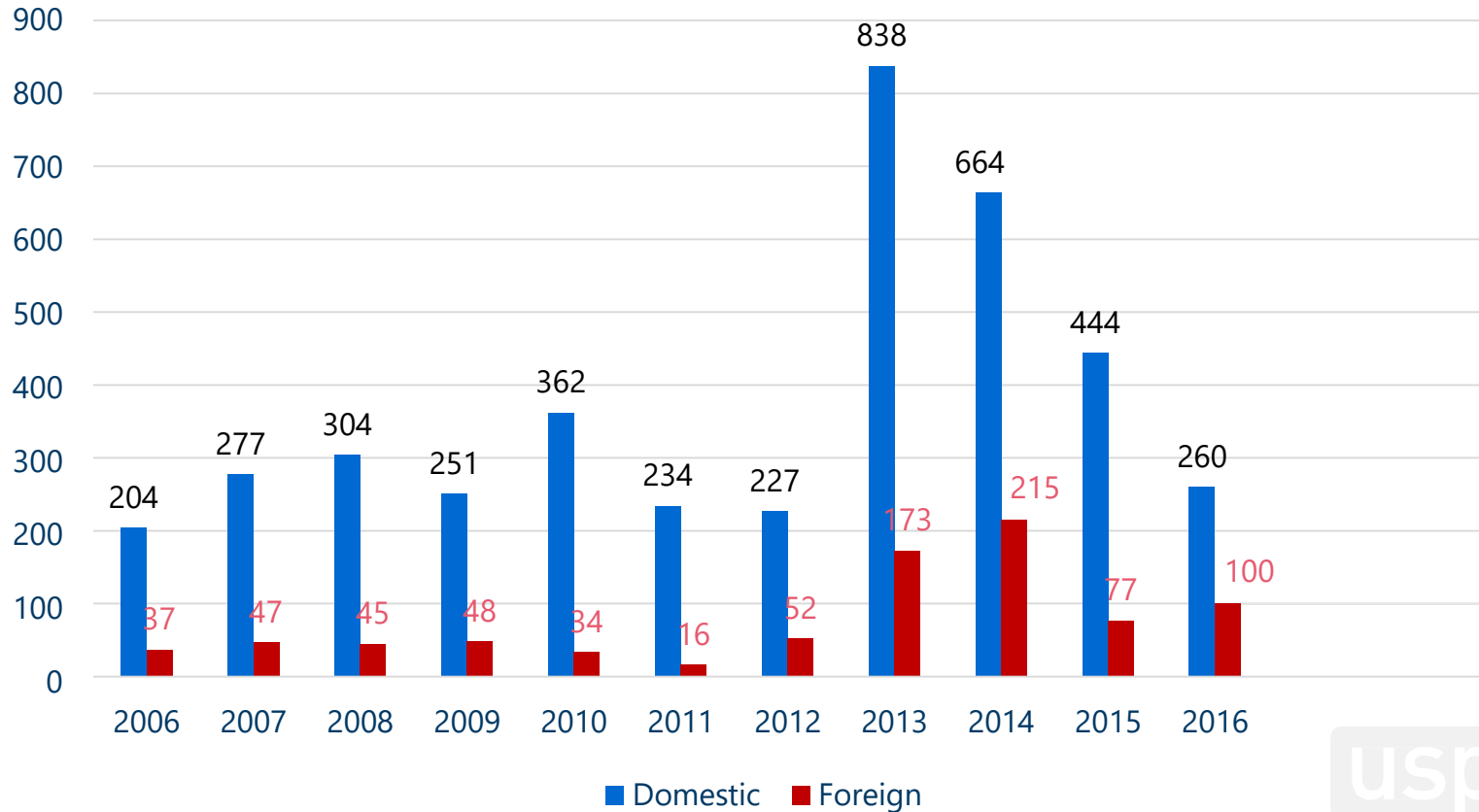
Effective March 21, 2019

uspto

To Be Eligible for PVP a Variety Must Be:

- **New** –not sold or disposed to others for more than 1 year in the US or more than 4 years, or 6 years for trees and vines in a foreign country
- clearly **Distinct** from all other varieties
- **Uniform** (all plants look alike)
- **Stable** (reproduces true to type)
- Variety Name

PVP certificates granted- domestic vs foreign origin



Plant variety protection – Breeder's rights granted

- **Term: 20 years from date of issue (25 years for trees or vines)**
- **Rights to exclude others from**
 - Selling or marketing
 - Conditioning or stocking
 - Offering for sale or reproducing
 - Importing or exporting
 - Using the variety to produce (as distinguished from develop) a hybrid or different variety

	Utility Patent	Plant Patent (PP)	PVP Certificate (PVPC)
Subject Matter	All Technologies	Asexual Reproduced	All Genera and Species (Sexually and Asexually)
Foreign Filing Grace Period	1 year	1 Year	4 years, 6 years for trees and vines
Core Grant Criteria	New, Non-obvious, Useful	New, Non-obvious, Asexual reproduction	Novel, Distinct, Uniform, Stable
Costs	Depend	\$2040*	\$5,150
Term of Protection	20 years from filing	20 years from filing	20 years from grant (25 years for trees and vines)
Maintenance Fees	Yes	No	No
Key Exceptions	Limited Experimental Use (Amusement, idle curiosity satisfaction, or philosophical inquiry (<i>Madey v. Duke Univ.</i> , 307 F.3d 1351 (Fed. Cir. 2002)))	Limited Experimental Use (Amusement, idle curiosity satisfaction, or philosophical inquiry (<i>Madey v. Duke Univ.</i> , 307 F.3d 1351 (Fed. Cir. 2002)))	Right to save seed (7 U.S.C. § 2543); Research exemption (7 U.S.C § 2544) Private and non-Commercial Use (7 U.S.C § 2541(e))

*Maybe more or less, depending on size of entity and application

Infringement

Patent Infringement (very limited exemptions):

- **Acts done without authorization from patent holder**
 - Making or using the patented invention
 - Offers to sell or sells within the U.S. the patented invention
 - imports into the U.S. the patented invention
 - Actively induces infringement of a patent

Plant Breeder's Rights (PVP) Infringement (limited exemptions):

- **Acts done without authorization of the breeder**
 - Selling, exchanging, marketing the protected variety
 - Offering or soliciting for sale
 - Multiplying, conditioning, importing, exporting and stocking the variety

Defend Trade Secrets Act

18 U.S.C. § 1836(b)



- Enacted in May, 2016
- Provides a Federal civil cause of action for trade secret misappropriation
- Remedies include, injunctive relief, compensatory damages, attorney's fees and *ex parte* seizure
- 3 year statute of limitations

Trade Secret Law



- Protects **proprietary information**, such as formulas, methods, techniques, or processes;
- Information must have **intrinsic value** derived from its secrecy and is not readily ascertainable through proper means;
- Owner **maintains** reasonable measures to keep such information **secret**;
- There is **no** specified **protection period** for a trade secret.

Resource:

- <http://www.uspto.gov/web/offices/pac/plant/index.html>
- <http://www.uspto.gov/web/offices/pac/utility/utility.htm>
- <http://www.ams.usda.gov/PVPO>
- <https://www.ars.usda.gov/office-of-technology-transfer/>
- <http://www.upov.int/portal/index.html.en>

THANK YOU

