A Guide for Identifying & Controlling

Common Noxious & Invasive Meeds











in Southwestern Pennsylvania

Purpose

The purpose of this manual is to provide information about Pennsylvania's noxious and invasive species identification and control measures, focusing on those weeds located in the southwest region of the state. The Pennsylvania Noxious Plant Control Law of August 18, 1997, "requires control measures for the noxious weed to be implemented by the landowners."

All Conservation Reserve Enhancement Program (CREP) contract holders are required to maintain and provide upkeep for the land where their CREP projects are located, which includes controlling noxious weeds. CREP contract holders may control weeds by their own means or hire a certified herbicide contractor.

For more information about controlling noxious or invasive weeds, please contact your local Penn State Extension Office at the number listed below:

Allegheny	(412) 263-1000	Greene	(724) 627-3745
Armstrong	(724) 548-3447	Indiana	(724) 465-3880
Beaver	(724) 774-3003	Washington	(724) 228-6881
Butler	(724) 287-4761	Westmoreland	(724) 837-1402
Fayette	(724) 438-0111		

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What is a "Noxious Weed"?

Pennsylvania Department of Agriculture has defined a noxious weed as a plant that is determined to be injurious to public health, crops, livestock, agricultural land, and other properties.

What is an "Invasive Species" (Weed)?

The Department of Conservation and Natural Resources has defined invasive species as an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health.

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Conservation & Development
Area (RC&D)back cover

Canada Thistle

Cirsium arvense Plant Family: Asteraceae

- Perennial plant
- Erect branching stems topped by flowers
- Mature plants stand 1.5 to 5 feet tall.
- Forms a rosette of lance-shaped, spine-tipped leaves
- Second year plant develops a stem by mid-summer.
- Leaves are alternate, spiny, oblong to lance-shaped with toothed edges.
- Flowers are disk shaped, 1 inch in diameter.
- Flower head surrounded by spineless bracts
- Pink to purple colored flowers
- The seed is flat and brown.
- Reproduces through abundant seeds and spreads by creeping rhizomes.



- Cut before seed sets.
- Repeated cutting will eventually weaken and kill the root system.
- Targeted applications of systemic herbicides, such as glyphosate, may be effective.
- Herbicide applications are most effective when applied before flowering.

Multiflora Rose

Rosa Multiflora Plant Family: Rosaceae

- Thorny, perennial shrub with arching stems
- Fringed brackets located at the base of each leaf stalk
- Grows to approximately 13 feet tall
- Can form large, dense hedges as it spreads
- Compound leaf divided into five to eleven leaflets with sharply toothed edges
- Fringed or hairy structure at leaf stipules
- Flowers grow in clusters.
- Small, white to pinkish-white, fragrant, five-petal flowers
- Flowers appear May-June.
- Fruit is reddish, fleshy, known as rose hips.
- Fruit develops during the summer and remains on the plant through the winter.

- Fruit provides food for birds and wildlife.
- Reproduces through seeds spread by birds on the tips of its stems.

- Hand pull young plants.
- Mow or cut large plants repeatedly (3 to 6 times during growing season) to weaken and kill.
- Cut stumps or resprouted stumps may be treated with systemic herbicides, such as glyphosate, to kill roots.
- Herbicide is most effective late in growing season.



Johnson Grass or Johnsongrass

Sorghum halepense Plant Family: Poaceae

- Perennial plant that grows $1 \frac{1}{2}$ to 10 feet tall
- Usually forms dense stands
- Leaves are alternate, simple, smooth, 6 to 20 inches long, and ½ to 1 ½ inches wide. Leaf blades are flat with a prominent, white midvein.
- Stems are solid with prominent, swollen nodes.
- Flowers, or spikelets, are in pairs at the lower end of the flowering stalk and in threes at the upper end.
- Johnsongrass has fibrous roots and extensive, thick, creeping rhizomes.
- Reproduces by the large, creeping rhizomes and seeds.
- Seed head with broad, open panicle. Seed turns reddish-brown or darker when mature.



- Hand pull or mow young plants.
- Plow or disk larger areas of infestation and follow with a targeted application of systemic herbicides, such as glyphosate, to kill rhizomes. Foliar herbicides work best when plants are 12 to 16 inches tall and actively growing. Possible use of other herbicides will depend on the presence of other vegetation/crops. Cut stumps or resprouted stumps may be treated with systemic herbicides, such as glyphosate, to kill roots. Herbicide is most effective late in the growing season.

Mile-a-Minute

Polygonum perfoliatum Plant Family: Polygonaceae

CHARACTERISTICS

- Trailing annual vine
- Delicate stem contains sharp, downward pointing barbs
- Grows rapidly, forming dense mats, blanketing other vegetation.
- Distinctive, small, round, funnel-shaped structure (ocreae) encircles stem at intervals.
- Leaf is alternate, light green (occasionally reddish), triangular to heart-shaped, smooth edged with barbs on underside.
- Measures $1\frac{1}{4}$ to 3 inches at base
- The flower is small, white, and inconspicuous.
- Flower emerges from the ocreae late June until fall.
- The fruit is a small, segmented berry.
- · Color varies: metallic blue, white, green

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- · Contains small, round, black, shiny seed
- Reproduces through numerous seeds disbursed by birds and water

- Remove by hand, wearing protective clothing to avoid barbs.
- Repeated removal of new growth throughout the summer is necessary. Mowing throughout growing season will also restrict flowering.
- Herbicidal soaps can be used throughout the summer. Repeated application is required.



Kudzu-vine

Pueraria lobata Plant Family: Fabaceae

CHARACTERISTICS

- High, climbing vine often completely covers trees, shrubs, and man-made structures forming "kudzu sculptures"
- Leaves are alternate, six to eight inches long and have fuzzy leaflets three to four inches long, oval, lobed or nearly heart shaped.
- Flowers are pea-like, large, hanging clusters, appearing in midsummer, with a grape-like smell and a purple to red color.
- Fruit are dark brown, flattened pods in clusters, very hairy and ripen in the fall.
- Stems are velvety with hairs turning brown.
- Trunk or vines may reach up to four inches in diameter. Older stems and vines turn brown and smooth and eventually form a fine, scaly bark
- Vines may extend thirty to one hundred feet in length with stems one half to four inches in diameter

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- As many as thirty vines may grow from a single root crown.
- Roots are fleshy, massive. Taproot is seven inches or more in diameter, six feet or more in length and weighs as much as four hundred pounds.

- Remove by hand, wearing protective clothing to avoid barbs.
- Repeated removal of new growth throughout the summer is necessary. Mowing throughout growing season will also restrict flowering.
- Herbicidal soaps can be used throughout the summer. Repeated application is required.





Bull or Spear Thistle

Cirsium vulgare Plant Family: Asteraceae

CHARACTERISTICS

- Biennial first year plant
- Erect, branching stems topped by flowers
- Mature plants stand 1.5 to 5 feet tall.
- Grows taller than Canada thistle
- Forms a rosette of lance shaped, spine-tipped leaves
- Second year plant develops a stem by mid-summer.
- Alternate, spiny, oblong to lance-shaped leaves with toothed edges
- Course hairs on the upper surface and softer whitish hairs below
- Disk shaped flowers, 1 inch in diameter
- Flower head surrounded by spiny bracts
- Reddish pink to purple colored flowers

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- Appears from June to early fall
- The seed is flat and brown.
- Reproduces through abundant seeds

- Cut before seed sets.
- Use repeated cutting to eventually weaken and kill the root system.
- Targeted applications of systemic herbicides, such as glyphosate, can be effective. Herbicide applications are most effective when applied before flowering.



Shattercane

Sorghum bicolor Plant Family: Poaceae

- Warm-season annual
- Reproduces by seed
- Fibrous root system
- Stems erect, smooth, 4 to 8 feet tall with tillers readily produced from crown
- Leaves resemble those of forage sorghum with a pronounced whitish-green mid-vein.
- Seed heads resemble forage sorghum, but seeds appear dark red to black when mature.
- Seeds "shatter," or drop easily at maturity.



- Hand pull or mow young plants during the first 7 to 10 days of August, before flowering.
- Targeted applications of systemic herbicides, such as glyphosate, work best when plants are 12 to 18 inches high and actively growing. Herbicide applications are most effective when applied before flowering. Possible use of other herbicides will depend on the presence of other vegetation/crops.



Plant Family: Asteraceae

- Biennial herb with showy, red-purple flowers and painful, spiny stems and leaves
- Mature plants range in height from 1 ¹/₂ to 6 feet tall and have multi-branched stems.
- Leaves are dark green, coarsely lobed, with a smooth waxy surface and a yellowish to white spine at the tip.
- Large disk-shaped flower heads, containing hundreds of tiny individual flowers, are 1½ to 3½ inches in length, occur at the tips of the stem, and will droop when mature.



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- Hand pull or cut prior to development of seeds.
- Flowers and seed heads should be bagged and disposed of in a landfill to prevent or minimize seed dispersal.
- Repeated cutting will eventually weaken and kill root system.
- If native grasses are present, targeted applications of glyphosate or triclopyr are effective.
- Treatments should be applied during the rosette stage or prior to flowering.

Jimsonweed

Datura stramonium Plant Family: Solanaceae

- Herbaceous annual that grows from 1 to 5 feet tall
- A single-stemmed plant can grow to cover an area up to 10 feet in diameter.
- Green to purplish stems are stout and hollow.
- Ovate to sub ovate leaves have long, stout leafstalks, coarsely serrate margins, measure 2 to 8 inches long, and taper at their tips.
- Leaves have an unpleasant scent when crushed or bruised.
- Axillary, trumpet-shaped flowers have white to light purple corollas and five teeth along their margins.
- Seed capsules of this plant are located at the forks between branches, ovoid in shape, 1 to 2 inches
- 18 long, and covered in prickles.

• When mature, the capsules split open into four segments and contain dark, wrinkled seeds, which are poisonous.



- Hand pull young plants.
- Targeted applications of glyphosate are effective.





Lythrum salicaria Plant Family: Lythraceae

- Erect perennial herb, growing to a height of 3 to 10 feet
- Mature plants can have 1 to 50 4-sided stems that are green to purple and often branching, making the plant bushy and woody in appearance.
- Opposite or whorled leaves are lance-shaped, stalkless, and heart-shaped or rounded at the base.
- Plants are usually covered by a downy pubescence.
- Flowers are magenta-colored with 5 to 7 petals and bloom from June to September.
- Seeds are borne in capsules that burst at maturity in late July or August.
- Single stems can produce an estimated 2 to 3 million seeds per year from a single rootstock.



- Hand pull small infestations before seeds set.
- Targeted applications of glyphosate (formulated for water or upland areas) are the most effective in controlling older plants.
- Apply herbicide late in the growing season.
- Biological control for large infestations has also been approved by USDA.
- For information, contact PA Department of Ag: 717-772-5209.



Heracleum mantegazzianum Plant Family: Apiaceae

CHARACTERISTICS

- Herbaceous, biennial plant that can grow up to 8 to 15 feet in height
- Large stem is hollow and usually blotched with purple.
- Leaves are compound, deeply lobed, sharply pointed, and 3 to 5 feet wide.
- Hairs on the underside of leaves are stiff, dense and stubby.
- White flowers are on a large umbrella-shaped, flat-topped head that can be up to 2 $\frac{1}{2}$ feet in diameter.

- Do not hand pull or cut this plant.
- **22** Plants exude a clear watery sap, which sensitizes the skin to ultraviolet radiation.

- This can result in severe burns, blistering and painful dermatitis.
- Blisters can develop into purplish or brownish scars.
- Repeated, targeted treatments of glyphosate are the most effective.
- Always wear protective clothing and avoid getting the sap on your skin.
- Report all sightings to the Giant Hogweed Hotline: 1-877-464-9333.



Goatsrue

Galega officinalis Plant Family: Fabaceae

CHARACTERISTICS

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- Herbaceous perennial that tends to form a crown and ranges 2 to 6 feet tall
- One plant may have 20 stems and a deep taproot.
- First seedling leaves are large, oval, and dark green, and mature leaves are alternate, odd-pinnate, with 6 to 10 pairs of leaflets, in which each leaflet has a small hair-like projection on its tip.
- Stems are hollow, cylindrical, and tubular.
- Flowering begins in June and continues until frost in the fall.
- White and bluish to purplish pea-like blossoms. Each blossom produces a straight, narrow, smooth pod, which points outward, is angled slightly up ward from the stem, and contains 1 to 9 seeds per pod.

• Seeds are bean-shaped, dull yellow in color, drop to the ground when mature, typically remain dormant until split, and may remain viable for ten years.

- Mowing, clipping and cultivation are poor controls because seed is produced even when the plants are small.
- Application of selective herbicides such as 2,4-D are the most effective.
- Two applications during the growing season for two consecutive years is recommended.



Marijuana

Cannabis sativa Plant Family: Cannabaceae

- Herbaceous, annual plant, which can reach a height of 13 feet
- Stem of the mature plant is stiff and fibrous.
- Opposite leaves that are sometimes alternate at the ends of branches
- Leaves are palmately divided, usually with 5 or 7 toothed leaflets.
- Flower parts are not discernable with the naked eye, up to 0.2 inches long and green.
- Blooms first appear in late summer and continue into mid fall.
- A plant can have both male and female flowers but often they are on separate plants.
- Male sacks release pollen to the wind. Female
 flowers often form dense clusters at the ends of branches.



- Hand pull young plants and destroy.
- Targeted applications of systemic herbicides, such as glyphosate, may also be effective.

Autumn Olive

Elaeagnus umbellata Plant Family: Elaeagnaceae

CHARACTERISTICS

- Deciduous shrub
- Recognizable by its bright green and gray green leaves with a silvery dotted underside
- Leaves are 2 to 3 inches long and 0.8 to 1.2 inches wide
- Shrub can grow from 3 to 20 feet tall
- Shrub has thorny branches
- Flowers are tubular and yellowish in clusters of 5 to 10 near the stem
- Fruits are round, red, and juicy with silver to silvery-brown scales

CONTROL

Remove seedlings by hand before they produce seeds



- Cut shrub at ground level
- Repeat cutting will eventually exhaust root system
- Targeted application of systemic herbicides on seedlings can be effective
- Stumps may also be treated with herbicides to kill roots
- Use a systemic herbicide, such as glyphosate or
- **29** triclopyr

Pen<mark>nsylvania Smartw</mark>eed

Polygonum pensylvanicum Plant Family: Polygonaceae



- Annual herb
- Plant can grow 2 to 6 feet high
- Flowers are pink or rose colored and grow on a short spike

- Stems are usually smooth
- Have been known to be a climbing species

- Can be pulled or dug out but physical control can reestablish seeds
- Can use herbicide, such as: glyphosate and triclopyr
- Remove young plants before flowers form



Marestail/Horseweed

Erigeron/Conyza canadensis Plant Family: Asteraceae





CHARACTERISTICS

- Annual herb
- Emerges as a rosette but grow into upright stems
- Can grow up to 5 or 6 feet tall
- · Leaves are about 4 inches wide, toothy, and hairy
- Leaves become smaller up the stem
- · Flowers are small with white or slightly pink flowers

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- Plants are best controlled during the rosette stage. Plants become more difficult above 5 inches tall
- Plants should be pulled by hand before flowering, and ensure root removal.
- Soil should be consistently tilled and cover crops can be used to suppress weed
- Herbicides may be used, varying MOAs. Some populations are resistant to ALS-inhibitors and glyphosate





Conium maculatum Plant Family: Apiaceae



- Biennial Herb
- Plants can reach up to 8 feet tall
- Leaves emit a foul and parsnip-like odor when rubbed or crushed
- Leaves are triangular in shape, up to 20 inches long, and two-to four-pinnate
- Plant begins as a rosette but grows tall with purple-spotted stems

• Flowers are white and grow in an umbrella-shaped clusters

- Mowing or cutting the plant is often most effective before flowering
- Pulling by hand works well with small infestations
- Removal of the entire root system is not necessary
- Herbicides, such as glyphosate, can be used for large infestations
- Complete eradication may take some time if viable seedbank is present



Wild Parsnip

Pastinaca sativa Plant Family: Apiaceae



- Biennial or perennial herb
- Can grow two to five feet tall
- · Leaves are saw-toothed
- Flowers are small and yellow in an umbel shape
- **36** Plant begins as a rosette and is the best time for control

- Hand pulling is best method of control. Make sure to remove root crown
- Make sure to wear gloves because plant can cause a rash or blistering reaction during skin contact
- Cutting and mowing may be used, but will require several years to exhaust root system
- Herbicides may be used, recommended during rosette stage





INVASIVE WEED

Tree-of-Heaven

Ailanthus altissima Plant Family: Simaroubaceae

- Small to medium-sized tree that can reach 80+ feet in height
- Smooth, grey bark
- Compound leaves, 1 to 4 feet in length, alternate, odd-pinnate, with 11 to 25 lance-shaped leaflets
- Gives off strong, distinct odor when cut, similar to peanut butter
- Yellow-green flowers grow at the ends of branches and appear in June
- Seeds are centered in slightly twisted, papery sheaths, which twirl as they fall to the ground.



- Use herbicides as a foliar, basal bark or cut stump treatment.
- Hack and squirt treatment (also known as frill and girdling treatment) is the most effective method.
- Root system must be seriously damaged or killed to prevent or limit stump sprouting and root suckering.
- Basal bark application does not require cutting and works best during the late winter/early spring and summer. However, the base of the tree stem must be free of snow, ice, or water.
- A solution of 20% oil-soluble triclopyr product to 80% oil works well.

INVASIVE WEED



CHARACTERISTICS

- Herbaceous perennial that forms large colonies of erect stems that can reach 9 feet in height
- Spread by vigorous rhizomes or horizontal stems that grow just below the soil surface
- Similar in appearance to Giant Knotweed, but Japanese Knotweed has a truncate, squared-off, leaf base versus heart-shaped for the Giant Knotweed

- Most common herbicide application is to spray the foliage.
- To control the rhizomes, spray later in the season (July 1 to the first killing frost).
- Can be cut earlier in June, but follow-up herbicide
 applications should be delayed for at least six weeks.

- Hand pulling can be effective also if entire root system is removed.
- Any control method must be repeated over several years to be effective.



INVASIVE WEED



Phalaris arundinacea Plant Family: Poaceae

- A vigorous, productive, long-lived, perennial, sod-forming grass
- Numerous broad, moderately harsh, erect leaves are dominantly basal.
- The coarse, erect hairless stems may reach a height of 2 to 8 feet.
- The seed is borne in an open panicle, which ripens from the top down and shatters readily as it matures.
- It has excellent frost tolerance.
- Growth begins early in the spring.
- Seed are shiny brown.



- Fire can help control the spread of Reed Canary Grass. Usually done in late autumn or late spring.
- A formulation of glyphosate, designed for use in wetlands, will kill reed canary grass, especially young plants, when applied to foliage according to label recommendations.
- Hand control for control may be feasible in small stands.
- Hand chopping the culms at flowering time may kill small clones.

INVASIVE WEED

Bush Honeysuckles

Fragrant Honeysuckle, Lonicera fragrantissima, Amur Honeysuckle, L. maackii, Morrow's Honeysuckle, L. morrowii, Tartarian Honeysuckle, L. tatarica,

Plant Family: Caprifoliaceae

- Upright, generally deciduous shrubs that range from 6 to 15 feet in height
- 1 to 2 ¹/₂ inch, egg-shaped leaves are opposite along the stem and short-stalked.
- Older stems are often hollow.
- Pairs of fragrant, tubular flowers, less than 1 inch long, are borne along the stem in the leaf axils.
- Flower color varies from creamy white to pink or crimson.
- Flowering generally occurs from early to late spring, but can vary.
- Fruits are red to orange, many-seeded berries.
- Native Bush Honeysuckles have solid stems
- **44** unlike the exotics.



- Seedlings can be controlled by application of a systemic herbicide, glyphosate, at a 1% solution, sprayed onto the foliage or applied by a sponge.
- Well established plants are best managed by cutting the stems to ground level and painting or spraying the stumps with a 2 to 3% solution of glyphosate.

INVASIVE WEED



Phragmites australis Plant Family: Poaceae

- Upright perennial that ranges in height from 5 to 13 feet
- Long, narrow leaves alternate on its tall stalks.
- Flower bearing stems have smooth nodes and hollow internodes.
- Leave blades are approximately one inch wide and are flat or rolled.
- Plants grow in dense single species or mono cultural stands.
- Plume-like flower spikes are 6 to 12 inches long and form at the top of the plants.
- Flowers are tiny with lots of silky hairs.
- **46** Large purple flower heads turn gray and fluffy in the plant in late summer as they go to seed.



- It spreads by a network of rhizomes.
- The plant's roots can withstand fires, mowing, and other forces that damage stalks and leaves.

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- They are susceptible to periods of flooding, wave action, and changes in salinity.
- Combined cutting, burning, herbicide application, and water management plans can help control the plant by removing old canes and allowing other vegetation to grow.
- Glyphosate, formulated for use in wetlands, should be applied after the plants form their fluffy flower clusters when the plants are sending carbohydrates to the rhizome.

INVASIVE WEED

Garlic Mustard

Alliaria petiolate Plant Family: Brassicaceae



- Biennial herb
- Leaves produce a garlic like odor when rubbed or crushed
- 48
- First year plants start as rosette of leaves

- A young plant has dark green and kidney shaped leaves with round teeth
- An older plant has leaves that are more triangular and with sharp teeth
- Leaf stalks are hairy
- Mature plants can reach up 3.5 feet tall
- Flowers are white, cross shaped, and in dense clusters

- Remove plant by hand, ensuring to pull the roots out (may take several years before seed bank is exhausted)
- · Plants should be removed before seeds are formed
- Glyphosate herbicides may be used on areas too large but caution around non-target species
- Herbicides are best used during late fall when fewer plants are actively growing

INVASIVE WEED



Berberis thunbergii Plant Family: Berberidaceae





- Deciduous shrub
- Shrubs are usually 2 3 feet tall but can grow up to 6 feet
- Can be identified by the bright red, egg-shaped berries
- Berries are about 1 cm long
- **50** Berries ripen in midsummer but say on stems till winter

- · Leaves are oval to spoon shape with a red-tinged
- Leaves turn red in the fall
- Flowers are pale yellow with six petal-like sepals and six smaller petals

- Mature plants in full sun and lots of seeds should be prioritized
- Plants can be removed by hand or using a spade, ensure to remove the root crown
- Repeated cutting will not control unless the root crown is removed
- Use a systemic herbicide, such as glyphosate or triclopyr
- Large thickets can be controlled with foliar spray. Triclopyr targets broadleaf species, but glyphosate is non-selective.





Contacts

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Farm Service Agency

Allegheny, Beaver & Butler FSA 625 Evans City Road Suite 103 Butler, PA 16001 724-482-4800 ext. 2

Armstrong FSA 11931 State Route 85, Suite B-2 Kittanning, PA 16201 724-545-1022

Fayette & Westmoreland FSA 214 Donohoe Road, Suite F Greensburg, PA 15601 724-853-5555

Greene & Washington FSA 2800 N. Main Street, Suite 1 Washington, PA 15301 724-222-3060 ext. 2

Indiana FSA 1432 Route 286 Hwy E Indiana, PA 15701 724-463-8547

Fayette County Satellite Office 1359 Connellsville Rd., Suite 10 Lemont Furnace, PA 15456 724-437-2264

Natural Resources Conservation Service

Allegheny, Beaver & Butler NRCS 625 Evans City Road, Suite 102 Butler, PA 16001 724-482-4800 ext. 3 CREP: 724-482-4800 ext. 108

Armstrong NRCS 11931 State Route 85, Suite B-1 Kittanning, PA 16201 724-545-1022 ext. 3 CREP: 724-545-1022 ext.101

Fayette & Greene NRCS 1359 Connellsville Rd, Suite 10 Lemont Furnace, PA 15456 724-437- 7971 ext. 3 CREP: 724-437-7971 ext. 101

Indiana NRCS 1432 Route 286 Hwy E Indiana, PA 15701 724-463-8547 ext 3 CREP: 724-463-8547 ext. 104

Westmoreland NRCS 214 Donohoe Road Suite C Greensburg, PA 15601 724-834-3970 CREP: 724-834-3970 ext. 3

Washington NRCS 2800 N. Main Street, Suite 1 Washington, PA 15301 724-222-3060 ext. 3 CREP: 724-222-3060 ext. 107

Conservation Districts

Allegheny County Conservation District River Walk Corporate Center 33 Terminal Way, Suite 325 B Pittsburgh, PA 15219 412-421-7645

Armstrong Conservation District Armsdale Administration Bldg. 124 Armsdale Road Kittanning, PA 16201-3738 724-548-3425

Beaver County Conservation District 156 Cowpath Road Aliquippa, PA 15001-5842 724-378-1701

Butler County Conservation District 122 McCune Drive Butler, PA 16001 724-284-5270

Fayette County Conservation District 10 Nickman Plaza Lemont Furnace, PA 15456 724-438-4497 Greene County Conservation District Fort Jackson Building Mezzanine 22 West High Street, Suite 204 Waynesburg, PA 15370 724-852-5278

Indiana County 280 Indian Springs Road Suite 124 Indiana, PA 15701 724-471-4751

Washington County 50 Old Hickory Ridge Road Washington, PA 15301 724-705-7098

Westmoreland Conservation District J. Roy Houston Conservation Center 218 Donohoe Road Greensburg, PA 15601 724-837-5271

Sources of Information

Ailanthus altissima, Tree-of-Heaven:

http://www.issg.org/database/species/ecology.asp?fr=1&si=319 www.nps.gov/plants/alien/fact/aial1.htm

Cannabis sativa, Marijuana:

http://2bnthewild.com/plants/H253.htm Utah State University Archives, Utah State University, <u>www.forestryimages.org</u> Visual Guide to Pennsylvania's Noxious Weeds, USDA-NRCS, Lebanon Field Office, 2005

http://www.cannabis-sativa.co.uk/cannabis-sativa.jpg

Carduus nutans, Musk or Nodding Thistle: http://www.nps.gov/plants/alien/fact/canu1.htm

Galega officinalis, Goatsrue: http://www.na.fs.fed.us/fhp/invasive_plants/weeds/goats-rue.pdf

Heracleum mantegazzianum, Giant Hogweed: http://www.invasive.org/eastern/other/poster_phhogweed.pdf

Lonicera sp., Bush Honeysuckles: http://www.nps.gov/plants/alien/fact/loni1.htm

Polygonum cuspidatum, Japanese Knotweed: www.dcnr.state.pa.us/cs/groups/public/documents/document/ dcnr_010254.pdf

plantscience.psu.edu/research/projects/vegetative-management/publications

http://vm.cas.psu.edu/Publications/FS_5_POLCU.pdf

Cirsium arvense, Canada Thistle; Rosa Multiflora, Multiflora Rose; Sorghum halepense, Johnsongrass; Polygonum perfoliatum, Mile-a-Minute; Pueraria lobata, Kudzu-vine; Cirsium vulgar, Bull or Spear Thistle; and Sorghum bicolor, Shattercane:

Maryland Noxious Weed I.D. brochure, Maryland Department of Agriculture: http://www.mdinvasivesp.org/list_terrestrial_plants.html

54 California Department of Food and Agriculture: http://www.cdfa.ca.gov/phpps/ipc/weedinfo/sorghum-bicolor.htm

Pharlaris arundinacea, Reed Canary Grass; Phragmites australis, Common Reed (Phragmites):

Maine Invasive Plants Bulletin #2532 <u>umaine.edu/publications/2532e/</u> Weed Science Society of America <u>wssa.net/weed/weed-identification/</u> USDA Natural Resources Conservation Service <u>http://www.plants.usda.gov</u>

Autumn Olive:

https://www.invasiveplantatlas.org/subject.html?sub=3021 http://www.issg.org/database/species/ecology.asp?fr=1&si=262

Garlic Mustard:

http://nyis.info/invasive_species/garlic-mustard/#Characteristics_and_ Identification http://www.invasive.org/browse/subinfo.cfm?sub=3005

Japanese Barberry:

https://mnfi.anr.msu.edu/invasive-species/JapaneseBarberryBCP.pdf http://www.issg.org/database/species/ecology.asp?si=592&fr=1&sts=

Michigan Department of Natural resources

Pennsylvania Smartweed:

https://plants.sc.egov.usda.gov/factsheet/pdf/fs_pope2.pdf https://plantscience.psu.edu/research/centers/turf/extension/plant-id/ broadleaf/pennsylvania-smartweed https://extension.umd.edu/hgic/topics/smartweed https://aquaplant.tamu.edu/management-options/smartweed-water-pepper/

Marestail/Horseweed:

https://www.uaex.edu/yard-garden/resource-library/plant-week/horseweed-8-5-05.aspx https://extension.psu.edu/marestail-horseweed-management

Poison Hemlock:

http://www.docs.dcnr.pa.gov/cs/groups/public/documents/document/ dcnr_010237.pdf http://www.invasive.org/browse/subinfo.cfm?sub=4365#maps

Wild Parsnip:

http://www.docs.dcnr.pa.gov/cs/groups/public/documents/document/dcnr_002469.pdf

55 http://www.na.fs.fed.us/fhp/invasive_plants/weeds/wild-parsnip.pdf Pennsylvania Department of Conservation and Natural Resources

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Penn's Corner Resource Conservation & Development (RC&D) Area



Allegheny, Armstrong, Beaver, Butler, Fayette, Greene, Indiana, Washington and Westmoreland Counties in Southwestern Pennsylvania.

Mission:

To enhance the area's natural resources and build strong communities by fostering regional partnerships, securing resources, and delivering needed services and programs.

Vision:

The complete restoration and ongoing convervation of our natural resources in harmony with strong, productive communities.



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