Facts About Weeds

The Fundamentals

1. Weeds muscle out crops and other desirable plants by competing for water, nutrients, sunlight and space. One example: A single mature tamarisk plant can consume 200-300 gallons of water a day.
2. Many invasive weeds are non-native plants first introduced in North America as ornamentals. Examples include tamarisk (*Tamarix* sp.), Japanese barberry (Berberis thunbergii) and Scotch broom (*Cytisus scoparius*).
3. Nearly 250 weed species have developed resistance to the herbicides used to control them.

"Many invasive weeds are non-native plants first introduced in North America as ornamentals."

Red Brome

The Impact on Crops & Natural Ecosystems

4. Weeds can promote flooding during hurricanes by jamming control pumps and blocking water flow.
5. Weeds such as cheatgrass (*Bromus tectorum*) or red brome (*B. rubens*) can pave the way for rampant wildfires.
6. Researchers at the University of Guelph confirm the significant impact of unchecked weeds on crops, including yield reductions of more than 50% for dried bean and corn crops.
7. Cotton farmers battling Palmer amaranth (*Amaranthus palmeri*) have found it can have a devastating impact on crop yields and is costly to control. Its stems are even tough enough to damage rugged farm equipment.
8. More than 240 weed species are reported to be "allelopathic" to other nearby plants – producing compounds that can inhibit their growth. One example: Soybean germination is inhibited by common lambsquarters (*Chenopodium album*), yellow nutsedge (*Cyperus esculentus*) and sunflower (*Helianthus annuus*).
9. The crested floatingheart (*Nymphoides cristata*) used in backyard water gardens can be a real nuisance if it escapes its intended home – impacting water supplies and hydropower production, disrupting natural ecosystems and impeding recreational activities such as boating, swimming and fishing.

The Impact on the Health of People and Animals

10. Some weeds are poisonous. Examples range from poison-hemlock (*Conium maculatum*) to oleander (*Nerium oleander*).
11. Some weeds irritate allergies. Common ragweed (*Ambrosia artemisiifolia*), for example, can release a billion pollen grains per plant from August through October, triggering allergic reactions for nearly 36 million Americans annually.

Poison Ivy

12. Poison oak (*Toxicodendron pubescens/T. diversilobum*), poison ivy (*T. radicans/T. rydbergii*), and poison-sumac (*T. vernix*) all have urushiol in their leaves, stems, roots, flowers and berries that can trigger highly irritating skin rashes that can last for many days.
13. The leaves and stems of both giant hogweed (*Heracleum mantegazzianum*) and common hogweed (*H. sphondylium*) can create painful blisters and scars.
14. Water lettuce (*Pistia stratiotes*) serves as a breeding ground for mosquitoes, which can carry diseases and threaten public health.

Hemlock

Horseweed

Water Hyacinth

15. Common groundsel (*Senecio vulgaris*) contains highly toxic alkaloids that can cause irreparable liver damage if consumed by cattle, horses or sheep.
16. Invasive aquatic hydrilla (*Hydrilla verticillata*) can harbor a deadly toxin that has killed thousands of birds, including eagles, coots, ducks and geese.
17. Myrtle spurge (*Euphorbia myrsinites*) is a hazard to nursery workers in the Southwest, who encounter the weed in containers of perennials, shrubs and trees. The stems and leaves can ooze a milky sap that causes dermatitis and eye irritation. The weed also harbors fire ants and other venomous insects.

Weeds on the Move

18. Weed seeds can travel in unexpected ways. They can stow away on tires, bumpers, wheel wells or the underside of a vehicle. They can hitch a ride with container-grown ornamentals or travel the country in a package of wild bird feed.
19. Tiny seeds from horseweed (*Conyza canadensis*) have been known to travel 300 miles by air. Specially equipped model airplanes have tracked horseweed seed in the earth's planetary boundary layer. Horseweed is native to North America, but now has spread to many countries around the world.
20. Invasive plants were spread by the 2011 tsunami in Japan, traveling to the U.S. among the tons of debris swept into the Pacific. One example is a type of Asian kelp called wakame (*Undaria pinnatifida*).

Weeds Growing by Leaps & Bounds

21. Infestations of waterhyacinth (*Eichhornia crassipes*) can double in size in as little as two weeks by sending out short runner stems that develop new plants.
22. A single, four-inch shoot of hydrilla (*Hydrilla verticillata*) has been known to produce 266 feet of growth (nearly the length of a football field) in just five weeks.
23. Invasive weeds are spreading at a rate of about 4,600 acres per day on federal lands in the Western United States.
24. The tuberous roots of kudzu (*Pueraria lobate*) spread in all directions and can weigh many hundreds of pounds. Established kudzu patches are known to form a mat of growth more than eight feet thick, consuming entire fields.

Purple Nutsedge

Weed Reproducing for Long-Term Survival

25. Weeds can be prolific seed producers. A single horseweed plant (*Conyza canadensis*) can produce as many as 200,000 seeds. A single Palmer amaranth (*Amaranthus palmeri*) can produce a million seeds.
26. Purple nutsedge (*Cyperus rotundus*) has been called the world's worst weed. It can produce tons of underground tubers and rhizomes per acre that regenerate when the plant is pulled or plowed. A single tuber can produce as many as 600 plants in a single year.
27. Ludwigia, a water-loving member of the primrose family, is a shape-shifter that adapts its appearance and leaf shape in response to the surrounding environment. Scientists often have to examine chromosomes to make an accurate identification.

"Invasive weeds are spreading at a rate of about 4,600 acres per day on federal lands in the Western United States."

Weeds That are Edible

28. Some weeds are edible. Examples include borage (*Borago officinalis*) and dandelion (*Taraxacum officinale*).
29. Small nutlets found at the tips of underground stems of yellow nutsedge (*Cyperus esculentus*) are edible and taste like almonds.

Dandelion

Burdock

Garlic Mustard

Scottish Thistle

Odd Facts About Weeds

30. After a walk, Swiss engineer George de Mestral observed burs from common burdock (Arctium minus) stuck to his wool pants and his dog's fur. A few years later he patented Velcro, an invention inspired by the weed.

"Cows that graze on garlic mustard (Alliaria petiolata) or other mustard weeds produce milk with a garlic flavor."

31. Scientists have discovered that earthworms contribute to the spread of giant ragweed by systematically collecting and burying its seeds in their burrows.
32. Cows that graze on garlic mustard (*Alliaria petiolata*) or other mustard weeds produce milk with a garlic flavor. Similarly, wild garlic mustard can "flavor" wheat crops and reduce their market value. It's NOT the best way to make garlic bread!
33. Ancient Egyptians wrapped their dead in the leaves of the giant reed (*Arundo donax*), now one of the worst riparian weeds in the lower half of the U.S.
34. Scottish thistle (*Onopordum acanthium*) is said to have helped win a battle. Norsemen came ashore planning to surprise sleeping Scottish forces and removed their boots for a quieter assault. A prickly patch of thistle growing between the two armies is said to have saved the day and became the Scottish national flower.
35. Native plants indigenous to an area can be considered weeds if they cause economic losses or ecological damage, create health problems for humans or animals, or are undesirable where they are growing. Examples included in this document are common ragweed, common sunflower, horseweed, Palmer amaranth, poison ivy, poison oak and poison-sumac.

WSSA
WEED SCIENCE SOCIETY OF AMERICA

www.wssa.net

Click on underlined text in the document above to link to source materials.