

TEASEL

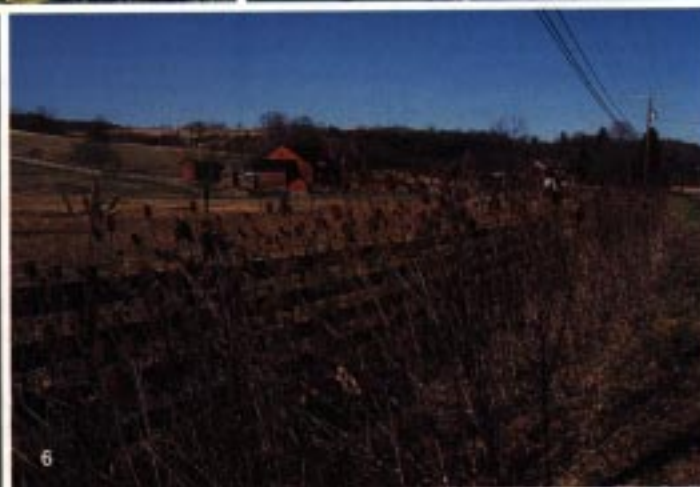
(Dipsacus sylvestris)

SEEDLING DESCRIPTION

Teasel seedlings have a long, straight taproot and a smooth, pale-green stem (hypocotyl). Seed leaves (cotyledons) have smooth margins and surfaces, and emerge in opposite pairs, each leaf ¼ inch wide by ½ inch long (6 by 12 mm). They are smooth and dull at first, then turn shiny.

Leaves unite at the base, forming a tiny collar around the stem. True leaves are also paired and united at their bases, and one leaf is slightly larger than the other. The upper leaf surface is covered with bristly spines, each emerging from a tiny bump so that the entire surface looks like a relief map. The lower surface is smooth

1. First year rosettes overwinter.
2. Leaf bases unite to form a cup.
3. Second year plants produce flower stalks.
4. Composite flower heads blossom in midsummer.
5. Bristly seedheads gave teasel its name.
6. Teasel is a common weed along fencerows.



except for bristles along the midvein. Leaf margins are scalloped and lined with bristly hairs.

Each seedling grows into a flat, round cluster of leaves called a rosette, and although the bright green leaves look like tender romaine lettuce, they are very bitter and taste like quinine.

BIOLOGY

Teasel is a biennial plant with a strong taproot and coarse, prickly stems. The rosettes that form during the first summer grow flat against the ground and remain green all winter. The following spring a stem emerges from the rosette, growing 3 to 6 feet (90 to 180 cm) tall and separating into several branches.

Rosette leaves are prominently veined and are very spiny, especially along the midribs. The leaves grow to one foot (30 cm) long and about 3 inches (7.5 cm) wide.

The upper leaves, those that grow along the stem in the second year, are opposite and sessile (attached directly to the main stem). The bases of each leaf on the lower part of the stem grow together, forming a neat cup that fills with water, sometimes $\frac{1}{2}$ cup or more, during rain.

Recent investigations indicate that teasel may be a semi-carnivorous plant. When insects fall into the water held by the leaf-cups, they drown and their bodies decay. The leaves are then able to absorb the dissolved nutrients directly into the plant's vascular system.

All leaves are oblong and may be slightly indented near the base. Leaf margins are wavy, toothed, and occasionally prickly. The upper leaf surface bears green spines, each one about $\frac{1}{4}$ inch long and mounted on a cone-shaped bump. Spines also line the underside of the leaf midribs and continue down the entire stem.

In early summer, spiny green flower heads begin to form at the stem tips. At first oval, they elongate into cylinders 2 to 3 inches long and $1\frac{1}{2}$ inches (3.8 cm) in diameter. Four or five thin, needle-like bracts grow from the base of each flower head and curve up around it for 2 or 3 inches.

The individual flowers on each flower head do not all open at once. Rather, blossoming begins near the middle of the cylinder and gradually spreads toward both ends until the whole flower head is a mass of tiny lavender blossoms. The tube-shaped flowers are only about $\frac{1}{4}$ inch long

and are perfect (have both male and female parts).

Each flower is accompanied by a $\frac{1}{2}$ -inch-long, tapering flexible bristle, and each produces a single, hard, grey-brown or black seed. Seeds are $\frac{1}{8}$ inch (3 to 4 mm) long, four-sided, and ridged along their length. A single flower head produces several hundred seeds — the only method by which teasel can reproduce. After the seeds mature in fall, frost kills the parent plant.

SIMILAR SPECIES

The Teasel family is a small one, and no other weeds resemble *Dipsacus sylvestris* enough to cause much confusion. *D. laciniatus*, a species of teasel found in eastern New York state, has deeply lobed or ragged leaves rather than the broad, entire leaves of *D. sylvestris*. Other than a variation in leaf shape, the two plants are the same. Teasel is distinguished from true thistles by the cups that its united leaf bases form and by its unique bristly seed heads.

NATURAL HISTORY

Teasel is an Old World plant, introduced to North America by the first European immigrants. It now grows as far north as Ontario, south into Tennessee, west to Utah, and along the Pacific Coast. It prefers damp, rich soils and is common in waste places, neglected pastures, and old fields, and along streams and roadside ditches.

Teasel is too prickly and bitter to appeal to livestock, so it often encroaches on neglected pastures and crowds out desirable forage if allowed to reseed itself year after year.

A special variety called fullers' teasel (*D. sativum*) is cultivated in Europe for use in the textile industry. The spines on the flower heads of fullers' teasel have tiny hooks on the ends, as compared with the straight bristles of *D. sylvestris*. These hooks provide the perfect tool for raising the nap on newly woven woolen cloth. The dried heads are fastened to rollers which gently brush the material until its surface is soft and fluffy. Although some manufacturers now use plastic brushes, nothing surpasses the natural bristles of teasel, which are just stiff enough to fluff up the wool fibers without tearing them.

Teasel leaves or flower heads mixed with alum produce a yellow dye for cotton or wool. Many people collect the flower

heads for a long-lasting and beautiful addition to dried flower arrangements.

Tiny grubs often live inside teasel flower heads. During Elizabethan times, people fastened these grubs onto necklaces in the belief that they would ward off "quartan ague," a malaria-like fever that afflicted the sufferer with severe fits of chills every fourth day.

The common name, *teasel*, is an Old English word meaning "to disentangle or lay parallel by combing or carding." The genus name *Dipsacus* derives from the Greek word *dipsa*, meaning thirst, and refers to the large amount of very drinkable water that collects in the cups formed by adjoining leaves. The species name *sylvestris* is from the Latin *sylvan*, meaning "of the woods."

Water collected from the leaf cups of teasel was once thought to cure tired eyes, remove warts, and beautify the face in general. These virtuous claims gave teasel the common name Venus-cup. It has also been called barber's brush, gypsy comb, card teasel, and card thistle.

CONTROL

Teasel is not a problem in cultivated land, because its taproots are sensitive to disturbance. Scattered plants may be eliminated from landscaped areas by rooting out the young rosettes in autumn or spring. In badly infested fields and meadows, plowing the ground will destroy the rosettes. Because teasel grows so well in damp soil, it may try to establish itself in drainage ways along roadsides. In waste places and areas that cannot be plowed, keeping the seed heads mowed off will control the spread of teasel.

Where teasel presents a serious weed problem and mechanical or cultural controls are not feasible, a systemic broadleaf weed herbicide may be needed. The best time for application is in late summer or fall, when the rosettes are actively growing and storing energy in preparation for next year's seed production.

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