

PLANTAINS

Rex Warren



BUCKHORN PLANTAIN—*Plantago lanceolata*—Showing entire plant and two views of seed. Seed magnified 6 diameters.

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Buckhorn Plantain

Plantago lanceolata

Other common names: Narrow-leaved plantain, Rib-grass,
English plantain.

BUCKHORN PLANTAIN is a perennial that reproduces by seed and by new shoots from caudex (rootstock or crown). Numerous prominent-veined, narrow leaves grow directly from the rootstock or crown. The lance-shaped leaves vary from 3 inches to nearly 1 foot in length, and are usually less than 1 inch wide. In pastures and lawns they grow flat on the ground, but in meadows they may grow erect. Each leaf has from 3 to 5 prominent veins running from base to tip; hence the name "rib-grass." Leaves are dark green on the upper side and pale underneath. They taper to a sharp point and have unbroken edges. A tuft of brown hair is found at the base of each leaf.

The crown is at or near the surface of the ground. The taproot tapers quickly from the crown and is covered by short rootlets. The main root system is in the top 6 inches of soil.

Flower heads are borne on the end of long, slender, and grooved stems. Stems are generally about 1/16 inch in diameter, and from a few inches to 2 feet in height. The cylindrical flower heads are about 1/4 inch in diameter and from 1 to 4 inches long, somewhat resembling a timothy head. When the heads are in bloom, numerous white stamens, which give the appearance of a ruffled collar, are apparent. There is no distinct blooming period. Heads form all summer on each plant if moisture is sufficient.

Seeds are produced in pairs, facing each other, enclosed in a paper-like capsule. They are canoe-shaped with the sides rolled inward and with rounded ends. They are glistening, about 1/10 inch long, and light to dark brown. The rolled edges do not quite meet, thus forming a longitudinal groove inside of which may be noted a dark-colored scar. All seeds are covered with a substance that becomes sticky when wet. This seed-covering substance is used by some warehousemen in cleaning seed. Damp sawdust is added to buckhorn contaminated seed. The buckhorn seed sticks to the damp sawdust and is readily removed by properly selected screens. The seed may remain

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viable when buried in the soil for many years. For this reason this pest is difficult to eradicate.

Buckhorn plantain plants are more common in crops that occupy the land more than one year. The plant recovers immediately after cutting and forms new stems and flowers from early spring until frost. This habit enables the plant to reproduce in pastures, meadows, and lawns. The crowns spread slowly and tend to crowd out the grasses. Buckhorn is slightly bitter, and livestock prefer grass. Their tendency to eat the grass in the spring and leave the buckhorn, allows it to expand at the expense of the grass in closely grazed pastures.

Buckhorn plantain remains green longer than most plants when the soil is dry and will grow on thinner, poorer soil than most domestic plants. For these reasons some sheep owners in southern Oregon prize it as a pasture plant.

Buckhorn plantain is a restricted noxious weed in vegetable and field seed sold in Oregon. Not more than 360 buckhorn seeds are allowed per pound of crop seed.

Rippleseed Plantain

Plantago major

Other common names: Broad-leaved plantain, Common plantain, Dooryard plantain.

This weed reproduces from seed, and by new shoots from the caudex (rootstock). It can be distinguished readily from buckhorn plantain by its wider leaves. They sometimes reach a width of 2 to 4 inches, while buckhorn leaves have long stems generally about as long as the leaf. They have 5 to 9 distinct veins running lengthwise of the leaf. Seed spikes are compact, and generally from 3 to 12 inches long at the end of an unbranched stem. Flowers are inconspicuous, with purple stamens. The seed is about 1/20 inch long and greenish-brown in color. Size and shape of the seed vary greatly according to the number of seeds in the capsule, which may be from 6 to 20. Rippleseed plantain seeds are common in clover and lawn-grass seeds. With proper cleaning, most of the seed can be removed quite easily from clover seed. They are difficult to separate from the smaller seeded grass crop such as bentgrass.

Control

Buckhorn and rippleseed plantain are easily controlled in lawn and grass seed fields with properly timed 2,4-D sprays. Three-quarters to one pound of parent acid of 2,4-D per acre, applied when the plantain is making active growth, controls over 95 per cent of the plants. Surviving plants are new seedlings and can be controlled with followup sprays.



RIPPLESEED PLANTAIN—*Plantago major*—Showing plant and two views of seed. Seed magnified 9 diameters.

For lawn spraying, follow the directions on the containers on rates of application. Use only the amine formulation because of less damage to other plants. If directions are not available, use the following table for amounts to spray per 1,000 square feet of lawn when spraying at the rate of $\frac{3}{4}$ to 1 pound of 2,4-D per acre.

Pounds of 2,4-D per gallon of concentrated solution	Teaspoons of concentrated solution per 1,000 square feet of lawn
1.....	16 to 21
2.....	8 to 11
3.....	5 to 7
4.....	4 to 5