JOHNSONGRASS

http://www.caf.wvu.edu/~forage/johnsongrass/johnsongrass.htm

This erect, perennial plant grows three to 10 feet tall and is adapted to a wide range of soils. It grows best on porous, fertile lowland soil.

Johnsongrass reproduces by seed and by fleshy underground stems (rhizomes). The plants may yield as many as eight to 10 bushels of seed per acre, but punctures from insects may destroy many of those seeds.

Rhizomes can be classified into three groups, primary rhizomes, secondary rhizomes, and tertiary rhizomes. Primary rhizomes are alive at the beginning of the growing season, secondary rhizomes grow from the primary rhizomes to the soil surface and form new plants when conditions are favorable for growth, and tertiary rhizomes are formed at the base of the crown about flowering time, penetrating into the soil. The longer the plants are allowed to stand after blossoming, the larger the tertiary rhizomes become and the deeper they penetrate. Primary rootstocks decay after the growing season. Only the secondary and tertiary rhizomes overwinter and become primary rhizomes the next year.

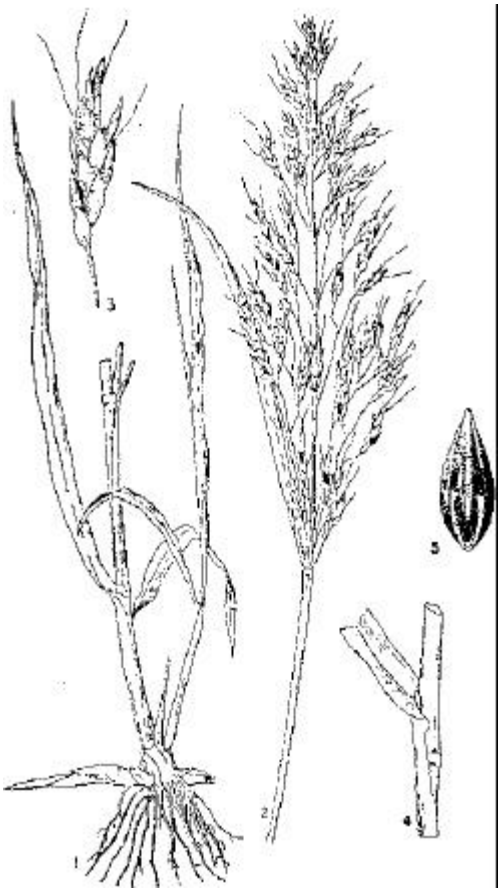
New Johnsongrass plants begin to produce new rhizomes in about three weeks and begin to bloom in about 47 days. Before blooming, leaf growth is rapid and rhizome growth is slow. After blooming begins, the leaf growth rate decreases and rhizome growth rate increases. Plants from seed can produce up to 212 feet of rhizomes in 152 days of growth. Rhizome Johnsongrass serves as a reservoir host for corn viruses.

Control measures should be timed to prevent formation of new plants from secondary rhizomes and to prevent tertiary rhizome formation after the plant heads out and blossoms. This will deplete food reserves in existing rhizomes by interfering with food manufacture and storage.

Pictured here are (1) stout stem base, roots, and a young rootstock; (2) panicle; (3) group of spikelets; (4) section of stem showing base of leaf; (5) seed.

NUTSEDGE

http://ohioline.ag.ohio-state.edu/hyg-fact/4000/4010.html



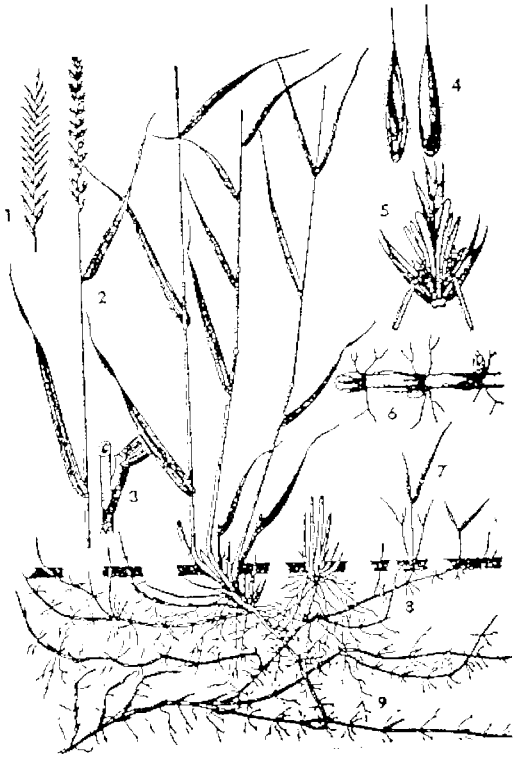
Purple nutsedge and yellow nutsedge, commonly misquoted as nutgrass, have become serious problems in recent years in several cultivated crops. These weeds, especially yellow nutsedge, are particularly troublesome in row crops. The nutsedges have a tolerance to most selective herbicides used to control other weeds in crops and, because competing weed plants are controlled, less tillage is practiced. Change in tillage practices, higher soil fertility from fewer weeds, and herbicide-tolerance of the nutsedges contributes favorably to their development and spread.

Vegetative shoots can emerge from tubers more than six inches deep. One or more rhizomes form from buds on the tuber and, when the rhizome reaches the soil surface, a plant with leaves, crown, and root develop. The new plant produces more rhizomes from the crown, and these create new vegetative growth and tubers. After crops are harvested, nutsedge control measures are usually minimal, especially under moist or wet soil conditions. An early crop harvest allows for a longer season for nutsedge growth and tuber production.

QUACKGRASS

http://www.weeds.ppws.vt.edu/quackgrass.htm

Because of its mass of underground stems, quackgrass is an effective erosion control. However, it cannot be tolerated in cropland; yields of almost any crop can be reduced by 50% to 95% from a heavy infestation of quackgrass. The infestation of quackgrass usually increases in small grains and legume-grass forages because no efficient control measures are available.



Quackgrass can be chemically controlled in corn. In fact, the corn crop itself helps to control quackgrass by competing with the weed. The presence of corn increases the effectiveness of herbicides at least two-fold. Pictured here is (1) the spike; (2) stems, leaves and inflorescence; (3) auricle and ligule; (4) seed; (5) spikelets; (6) buds on rootstock; (7) new shoots; (8) origin of new shoots; (9) rootstocks and roots.

This grass reproduces by seed and underground rootstocks. Rootstocks vary from 2 to 8 inches in depth, depending on soil type and treatment. The weed is found in open waste places, pastures, and in most cropped areas.

It can be used for pasture or a grass-hay plant, even though it is considered a weed.

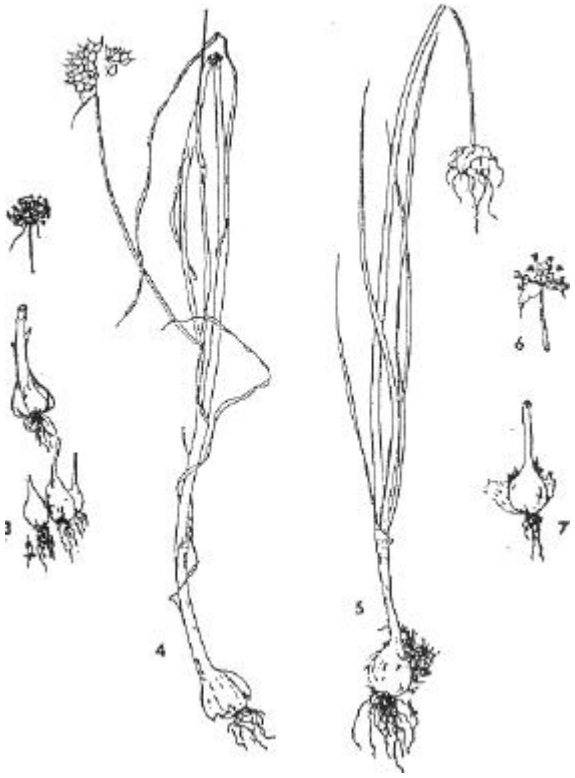
WILD GARLIC

http://www.ppws.vt.edu/scott/weed_id/allvi.htm

Wild garlic (often called wild onion) contains allyl sulfide which, when eaten by dairy cattle, produces a disagreeable odor. The plants are drought hardy, cold hardy, and tolerant to wet soils.

Wild garlic usually spreads by aerial bulblets, but can also spread by seed. It is difficult to eradicate.

Pictured is (1) flower cluster; (2) old bulb and bulblets; (3) underground bulblets; (4) entire plant. Wild onion (5) entire plant; (6) flower cluster; (7) old bulb.



Wild onion is a different species but resembles wild garlic, and does not produce underground bulblets.

Additional Reference

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