

Johnsongrass

Sorghum halepense

Erect, perennial, rhizomatous, warm-season grass

Ranked among the top ten world's worst weeds

Distinguished from other grasses by:

- Ribbed leaf sheath
- Leaves have a conspicuous midrib
- Large, purplish, paniced seed head
- Extensive large, fleshy, purple rhizomes

Habitat

- Fertile, porous soils, pH 5.0-7.5
- Disturbed, flooded lands
- Ditches and waterways
- Cultivated fields

Flowers

- Monoecious
- Flowering occurs approximately 8 weeks after emergence in spring
- Exact time of flowering depends on temperature, plant vigor and photoperiod (8-16 hours)

Rhizomes

- Primary spring growth is from apical and axillary nodes
- Secondary growth is annual above and below ground structures
- Rhizome spurs and tillers initiate growth 30 days after onset of primary growth, usually at six leaf stage
- Majority of rhizome growth occurs after flowering
- Minimum temperature for rhizome growth is 59°
- Rhizome depth depends on soil type, shallow in clay-deeper in loam, avg. is 8"

Seeds

- Dispersal mechanisms: contaminated feed and forage, livestock, machinery, water and wind

Growth and reproduction

- Plants can regenerate from small rhizome fragments (2")
- Most seeds germinate during second year
- Carbohydrate reserves are lowest in early spring and early fall, are at the absolute lowest 10-30 days after flowering

Management

- Constant cultivation to chop, desiccate and/or freeze rhizomes
- Frequent mowing to deplete carbohydrate reserves
- Herbicides: glyphosate, imazapic

Threats

- Alleopathic
- Rapid growth and height shades smaller plants
- Aggressively competes for light, nutrients and water
- Stress can produce hydrocyanic acid, cured hay ok
- Johnsongrass serves as a host for crop diseases
- Highly allergenic due to the amount of pollen produced

JOHNSONGRASS

