

Wild Cane—Characteristics and Control

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Wild cane, also called "black amber cane" or "shattercane," poses an important weed problem in Missouri. This weed is a fierce competitor and has been known to reduce corn yields by 40% or more.

The origin of wild cane is unknown. There is speculation that it may have resulted from natural crosses of forage sorghums with other sorghum types. It has a broad genetic base and an aggressive growth habit. The broad genetic base accounts for differences in appearance such as tightness of head (panicle) and seed color.

Wild cane also has highly diverse growth habits. It generally grows to a height of 5 to 7 feet, but under certain conditions, height can vary from 3 to 12 feet.

Wild cane is classed as a weed because of its tendency to re-seed itself and to volunteer in subsequent crops. As maturity approaches, the head tends to droop to one side of the central axis (Fig. 1). Seed is shattered from the head at maturity—the characteristic from which the name "shattercane" is derived.

Stalks of wild cane generally are weak, become brittle as they mature, and eventually break and lodge. The tangle of stalks in late maturing row crops makes harvesting difficult. Losses from harvesting problems and losses due to competition make wild cane a costly intruder.

Wild cane can be recognized when it first appears in an area (Fig. 2) and should be eradicated immediately, or the infestation will spread rapidly.

Wild cane can become established in an area as a contaminant in crop seed, in manure, by irrigation, by run-off, or by flood waters. The seed can also be transported in feed, or by livestock or machinery. A single seed deposited in a cultivated area can be the source of extensive infestation (Fig. 3).

Wild cane generally is most prevalent in fertile bottomland areas; however it is found growing under many diverse conditions.

Characteristics of wild cane are summarized by Dr. O. C. Burnside, University of Nebraska:

1. Buried seed remained viable in the soil for 26 months—maximum dormancy in soil has not been determined.
2. Approximately 50% of the seeds included in a study were light enough to float on water. Of these light seeds, 87% germinated.
3. Hydrocyanic acid content of young tillers was similar or slightly lower than for forage sorghums.
4. Wild cane produced $\frac{1}{3}$ less tonnage per acre than forage sorghum in Nebraska tests.
5. Seedlings can emerge from depths as great as six inches in the soil.
6. High soil temperatures increase the rate of germination and seedling emergence.
7. Wild cane may produce viable seed 10 days after the anthers appear.

Information contributed by L. E. Cavanah, Department of Agronomy, University of Missouri-Columbia, pertaining to dormancy of wild cane seed while over-wintering in the field demonstrates a progressive decline in germination percentage during the five-month period following harvest. Germination percent dropped from a high of 95% shortly after harvest to 49% five months later. During the same period, firm (hard) seed increased from 2% to 29%. Presumably, the hard seed was viable and would germinate under favorable conditions at a later date.



Figure 1—Note the wide variation in head type of wild cane. Heads have a pattern of side branching. A distinguishing characteristic at maturity is the hard shiny-black or dark reddish-brown seed.



Figure 2—Wild cane can be eradicated at least cost when a lone plant is found in the field.



Figure 3—This infested area may have originated from a single seed.

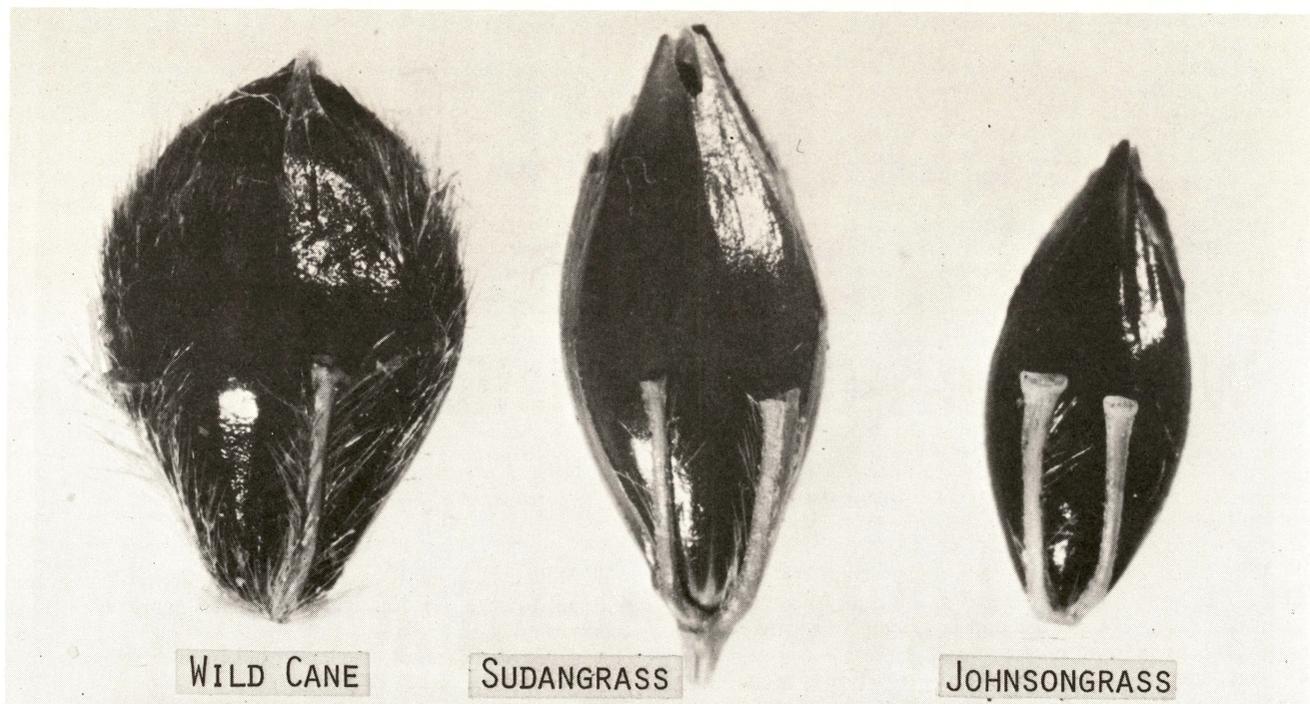


Figure 4—Wild cane and Johnsongrass break clean from the stem while sudangrass does not. Bell-shaped ends of appendages alongside Johnsongrass are an identifying characteristic. Wild cane is much larger and rounder than Johnsongrass seed, with sudangrass between them in size and shape.

Control

Prevention is the most effective and most economical method of control. Single plants (Fig. 2) should be eradicated immediately when they are recognized. Identification is not difficult because wild cane rears its head above all competing crops and can be spotted from a considerable distance. The entire plant must be completely removed—chopping off at the base is not sufficient because tillers will develop and produce seed heads. Mechanical cultivation has limitations because it generally cannot control wild cane in the crop row, nor can cultivation control those plants that emerge following lay-by.

Cropping

Early maturing small grains followed by plowing and tillage as necessary will control wild cane and may eventually eradicate it if seed production is prevented. Where winter wheat is grown in an infested area, wild cane will emerge above the wheat stubble immediately after combining. It should be plowed under or mowed before growth becomes rank and definitely before seed heads develop.

Seedlings will continue to emerge during July and August, or as long as soil temperatures and moisture are favorable for germination. Tillage is necessary for seedling control.

Mowing

Where infestation is uniform and extensive, wild cane emerging in wheat stubble can be mowed and used for hay. It is coarse and inferior to sudangrass for hay, but if cut at an early stage wild cane has value as a roughage. It is essential that mowing be done before seed heads appear. Plowing should follow shortly after mowing because regrowth from stubble will produce seed heads within a short period of time.

Herbicides

Corn. Various herbicides are available for wild cane control in corn. Eradicane (Eptam, plus a softening agent) incorporated at a rate of three lbs. per acre has generally been

effective. However, Eradicane has not performed well in Northwest Missouri (north of I-70 and west of I-29).

Sutan-plus can also be used for wild cane control, but has been less consistent than Eradicane. Neither Eradicane or Sutan-plus should be used on corn grown for seed.

Princep (simazine) at four lbs. per acre incorporated can also be used for wild cane control. However, where simazine is used, only corn should be grown the following year.

One or two timely cultivations will supplement the performance of the above herbicides.

Soybeans. Treflan, Vernam and Basalin are labeled for wild cane control in soybeans. Treflan has given consistent results and appears to give best results where incorporated fairly deep. It gives nearly full season control and, with a timely cultivation, should give satisfactory results for the full season. Apply .5 to 1 lb. per acre on light soils. On medium and heavy soils, apply at rates of 1.0 to 1.25 lbs. per acre.

Vernam has been used successfully for wild cane control but generally gives shorter season control than Treflan. Apply at 3 lbs. per acre and incorporate to a depth of 1 to 2 inches within 8 hours after application. Rates will vary with soil type and organic matter control.

Label rates for all wild cane herbicides take precedence over rates included in this publication.

Glossary of Chemical Names

Common Name	Trade Name
Butylate	Sutan+
EPTC	Eradicane
fluchloralin	Basalin
simazine	Princep
trifluralin	Treflan
vernolate	Vernam

Mention of commercial products in this guide does not imply endorsement or recommendation over similar products not mentioned.