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THE CUT-LEAVED NIGHTSHADE (*Solanum Triflorum* Nutt.)

NESTOR L. STILES AND ARTHUR L. BAKKE

The cut-leaved nightshade, *Solanum triflorum* Nutt., was found in September 1941, in Rock Township, Cherokee County, Iowa. This nightshade was discovered growing in a pasture where there was a mixture of Clarion and Marshall soil types on the top of a bluff about twenty feet high where the soil was thin and gravelly.

Solanum triflorum, cut-leaved nightshade, three flowered nightshade, or wild tomato, is a low spreading annual, reproducing by seed, slightly hairy, or nearly glabrous, leaves alternate, acute; flowers 1-3 inches; corolla white; berries greenish in color, about the size of a small cherry; seeds about 2 mm. long, obovate, flattened, minutely pitted, dull yellow to light brown.

According to Gates (1941), the plant was originally limited to native prairies of the Great Plains. With increased cultivation, the weed has extended and encroached on cultivated fields, pastures, gardens, pea fields and waste places (Muencher, 1935) and is common in the western half of Nebraska and Kansas. Over (1932) states that it is an annual, found on dry banks and prairie dog towns in South Dakota.

In the recent work of Robbins, Bellue and Ball (1941) the weed has been reported from four counties in California.

Chestnut and Wilcox (1901) state that the green berries which are half an inch or more in diameter are not attractive to the eye but have an agreeable odor and taste. Complaints of the poisoning of cattle by this plant have been sent in to the Department of Agriculture from Nebraska. Experiments with Guinea pigs have shown that the berries are poisonous. No case of human poisoning has been reported. Pammel (1911) states that he received complaints of poisoning by this plant from Nebraska and other Western states. The active constituent according to Pammel is attributed to solanin.

Thompson and Sifton (1922) have reported that the three-flowered, spreading or Prairie nightshade grows on the plains of Ontario and westward.

It is perhaps hazardous to even suggest means by which this plant has gotten so far from its course. The farm upon which the

cut-leaved nightshade has apparently gotten a firm foothold has always carried sheep and the plant may have become introduced from that source. Apparently the plant is not new to the state as there is a specimen of *Solanum triflorum* Nutt. in the herbarium of Iowa State College collected by Professor Bruce Fink, August 6, 1894 at Fayette, Iowa.

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LITERATURE CITED.

- Chestnut, V. K. and Wilcox, E. V. 1901. The stock poisoning plants of Montana. U. S. Department of Agr. Div. Of Botany. Bul. 26.
- Gates, Frank C. 1941. Weeds of Kansas. Report of the Kansas Board of Agr. LX:243.
- Robbins, W. W.; Bellue, Margaret; and Ball, Walter. 1941. Weeds of California. State Department of Agr., Sacramento, Cal.
- Muencher, W. C. 1935. Weeds. Macmillan Co.; New York.
- Over, William H. (1932) Flora of South Dakota. Univ. South Dakota, Vermillion.
- Pammel. L. H. Manual of Poisonous Plants. 1911. Torch Press, Cedar Rapids, Iowa
- Thompson, R. B. and Sifton, H. B. 1922. A guide to the poisonous plants and weed seeds of Canada and the northern United States. University of Toronto Press.