

DEVIL SHOE STRING MAY BE VALUABLE

Experiments Being Tried By Whitmire On Plant Here —Is Good Elsewhere

Cracca Virginiana L., known to farmers of this section as devil's shoe string, catgut plant, rabbit bean, white sweet pea, wild sweet pea, and other names is a North American weed found in abundance in Transylvania county which is a potential source of rotenone and other related insecticides and which is attracting attention in the scientific world to-day because of this value, according to H. E. Whitmire, who this fall will enter the manufacture of an insecticide from this plant.

Mr. Whitmire for ten years has been connected with the research department of the Ralston Purina company of St. Louis, Mo., and his work has led him into a careful study of the possibilities of this plant. The United States Department of Agriculture has printed one of his works on the plant, "Private Communication." Mr. Whitmire is a native of Transylvania county, being the son of Mr. and Mrs. E. J. Whitmire of Cherryfield.

"Devil's shoestring is a perennial herb 12 to 24 inches high with pubescent foliage, and 11 to 21 elliptic leaves," according to a United States Department of Agriculture bulletin by R. C. Roark.

The flowers resemble sweet pea and are pale yellow with pink or purplish wings and keels. The pods are 1 to 2 inches long. The root is the only part of the plant that has been found to possess activity as a fish poison or as an insecticide. It is a hard substance having a faint spicy odor and a faintly sweet and slightly astringent taste.

Mr. Whitmire by careful study and research has extracted from the root an insecticide and fungicide which he plans to commercialize for the control of aphids, leaf hoppers, codling moth, San Jose scale, pear slugs, bean beetles, cabbage worms, red spiders, white fly and leaf tyer. He has found that the powder of this insect will kill the insects as well or better than other insecticides and at the same time will not harm animals or human beings directly or indirectly. This, he believes, will tend to prevent many deaths which occur every year among individuals who eat vegetables which have been sprayed with harmful ingredients.

Although this plant grows in almost any well drained soil, the bulletin says that apparently only the roots from sandy soil contain constituents of insecticidal value. Not all plants growing in sand are toxic, in fact most are worthless as are all that are found in clay, and both toxic and non-toxic plants have been found in the same type of sandy soil. Whitmire, on the contrary, reports that plants growing in clayey soil may have insecticidal value.

Whitmire has extracted as much as one per cent rotenone from a specimen of devil's shoestring and if further testing reveals a good percentage of this insecticide he plans to have great amounts of the weed grown in this county and properly cultivated and fed so as to increase this value.

The insecticidal value of the devil's shoestring was discovered by V. A. Little, who was led to study the plant because its action on fish is similar to that of derris, a widely used plant insecticide. The plant was used by Indians for a fish poison, the poison not harming the value of the fish for human consumption. It is also believed that it was used by the Indians for a medicine; as a purgative and vermifuge. The Cherokee Indians of the Great Smoky mountains of Tennessee and North Carolina prepared an ointment from the leaves of this plant to strengthen the hair of the squaws and to toughen the sinews of ball players.

The plant has been found only where competition with other vegetation is not too keen, such as railway right-of-ways that are periodically burned over. Although the plant may be propagated from either the roots or the seeds, the roots produce larger

plants in a given time but at greater cost. At least two years are required to produce a satisfactory root system. Under cultivation the devil's shoestring grows more luxuriantly than when wild, and marked variations appear indicating different varieties or strains.

Whitmire has found the plant in various sections of Transylvania county and is making a study of the local situation at the present time. He has a process of his own by which he tests the plants for insecticide and rotenone values.

F. L. Campbell, entomologist for the bureau of entomology and plant quarantine of the United States department of agriculture, who specializes in control investigations, said in a recent letter to Mr. Whitmire:

"I was pleased to receive your letter of July 11, for I had been told something about your promising work with Cracca. Mr. Sievers may have told you that we are now making a survey of the effectiveness of many samples of Cracca collected in the southeastern states. We are testing acetone extracts against house flies by a laboratory method that has not yet been published. It is a modification of the method described in the enclosed circular and can be operated by one man. It enables us to pick out the toxic specimens rapidly."

Mr. Whitmire has tested his extract, keeping an accurate count of the number to fall dead from the poison in so many minutes.

Use for Cellulose

The first chemical uses for cellulose were those where it was combined with nitrogen to form cellulose nitrate. By varying the amount of nitrogen, chemists obtained a wide variety of products. If a large proportion of nitrogen was used they obtained smokeless powder. With a medium proportion the quick-drying lacquers for automobiles and similar products were developed. Using only a small amount of nitrogen to large amounts of cellulose, the chemists produced celluloid for motion picture film, toilet articles and a multitude of molded toys.

Ancient Stocks in England

Visitors to England passing through the village of Albury, Hertfordshire, a few miles from London, may see the old village stocks where vagrants, trespassers, poachers and ne'er-do-wells had their ankles pinioned in a pair of notched planks. Several could be dealt this cruel type of justice at one time.

First Cast-Iron Rails

Cast-iron rails were first used in 1767, being made in five-foot lengths. Soon after a cast-iron flange was added to keep the wheels on the track.

NOTICE OF ACTION (General) STATE OF NORTH CAROLINA, COUNTY OF TRANSYLVANIA.

In The Superior Court.
J. G. K. McClure Jr., Plaintiff.
—Vs.—
Carolina Mountains Realty Corporation, a corporation, Defendant.

All persons claiming any interest in the property hereinafter described will take notice that an action entitled as above has been begun in the Superior Court of Transylvania County, North Carolina, for the purpose of foreclosing the lien of a tax sale certificate for taxes for the year 1930 on property in Transylvania County, North Carolina, described as follows:

Lying on the West Fork of the French Broad River and Abram's Creek, containing 114 acres more or less, and being same lands described in deed from Hugh Pinnix and wife and J. W. Summey and wife to Carolina Mountains Realty Corporation, dated Jan. 21, 1926, and recorded in book 57, page 93, Records of Deeds for Transylvania County.

All such persons are further notified to appear, present, set up and defend their claims in said action within six months from the 15th day of November, 1934, or at any time before the order to make deed is made, otherwise they will be forever barred and foreclosed of any and all interest or claims in or to said property or the proceeds re-

ceived from the sale thereof.
This 18th day of October, 1934.
OTTO ALEXANDER, Clerk
Superior Court, Transylvania County, N. C.
4t Oct. 25, Nov. 1, 8 & 15.

NOTICE

OF SALE OF REAL ESTATE NORTH CAROLINA, Transylvania County.

Under and by virtue of the power of sale contained in a Deed of Trust dated January 5th, 1931, executed by Frank Jenkins and wife, Mary C. Jenkins, which Deed of Trust is recorded in book 28, at page 113 in the office of the Register of Deeds of Transylvania County, default having been made in the payments of the indebtedness thereby secured, and more than five days notice having been given the debtor, and the holder of the note evidencing said debt having directed the undersigned trustee to sell lands described in said Deed of Trust, on Saturday, the 24th day of November, 1934, at noon at the court house in Brevard, North Carolina, I will offer for sale and sell to the highest bidder for cash the following described property:

Lying in Cathey's Creek Township, Lands owned by the late J. E. Duckworth at the time of his death. The interest of the parties of the first part being one-half of an undivided 1-16 interest purchased by A. E. Hampton and Frank Jenkins, and the undivided 1-16 interest for-

merly owned by Spann Duckworth.
Sale made to satisfy said debt and costs and expenses of sale.
This the 24th day of October, 1934.
R. L. GASH, Trustee.
4t Oct. 25, Nov. 1, 8 & 15.

NOTICE

Of Sale of Real Estate NORTH CAROLINA, Transylvania County.

Under and by virtue of the power of sale contained in a Deed of Trust dated September 14, 1929, executed by A. E. Hampton and wife, Lina D. Hampton, which Deed of Trust is recorded in book 24, at page 294, in the office of the Register of Deeds of Transylvania County, default having been made in the payments of the indebtedness thereby secured, and more than five days notice having been given the debtor, and the holder of the note evidencing said debt having directed the undersigned trustee to sell lands described in Deed of Trust, on Saturday, the 24th day of November, 1934, at noon at the court house in Brevard, North Carolina, I will offer for sale and sell to the highest bidder for cash, the following described property:

Lying in Cathey's Creek Township, lands owned by the late J. E. Duckworth at the time of his death. The interest of the parties of the first part being one-half of an undivided 1-16 interest and 1-16 of an undivided 1-16 interest, known as the

old J. E. Duckworth farm near Island Ford bridge.
Sale made to satisfy said debt and costs and expenses of sale.
This the 24th day of October, 1934.
R. L. GASH, Trustee.
4t Oct. 25, Nov. 1, 8 & 15.

NOTICE OF SALE

Under and by virtue of the power of sale contained in a Deed in Trust executed on the 1st day of August, 1930 by and between Hinton McLeod, and wife, Frances A. McLeod, to W. E. Breesee, Trustee, which said Deed in Trust is duly recorded in the office of the Register of Deeds of Transylvania County, N. C., in Book No. 28, page 61 and indexed in said office and to which said index and record reference is hereby made and the same made a part hereof for the purpose of description, and default having been made in the payment of both principal and interest on the notes secured by the said Deed in Trust and legal demand having been made for the payment of same by the holder of said notes, and all other legal notices having been duly given, the undersigned Trustee will, on Monday, November 19th, 1934, at 12:00 o'clock M. offer for sale at Public Auction, and sell to the highest bidder FOR CASH at the Court House door in the town of Brevard, County of Transylvania, State of North Carolina, the following pieces,

parents or lots of land, and all interests therein, as described and set out in said Deed in Trust, and said land being more particularly described as follows:

FIRST TRACT:
Being all that tract of land fully described in a deed from G. L. Glasener and wife, Jessie L. Glasener to J. H. Tinsley and wife, Bertha Tinsley, said deed bearing date of September 19th, 1919, and which deed is registered in Book No. 41 at page 211, et seq. of the Deed Records of Transylvania County, and which Deed records are hereby referred to and made a part hereof for the purposes of a description of said tract of land.

SECOND TRACT:
All of that tract of land adjoining the above described tract, and fully described in a deed from D. L. English, and wife, Maudie S. English to J. H. Tinsley, by deed bearing date of August 21st, 1923, and which deed is duly registered in Book No. 28 at page 31 of the Deed Records of Transylvania County, N. C., and which deed and record are hereby referred to and made a part hereof for the purposes of description of said tract of land.

Said sale being made for the purpose of satisfying said debt, interest, cost and expenses of said sale.

This is the 18th day of October, 1934.
W. E. BREESEE, Trustee.
4t county Oct. 18, 25, Nov. 1, 8.

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