

Dr. Morton Deroza, Division of Insecticide
Investigations, NEPC

March 30, 1950

A. F. Sievers, Principal Biochemist, Division of
Tobacco, Medicinal and Special Crops
Trial Plantings of Tripterygium wilfordii

The adaptation test plantings of Tripterygium wilfordii were started in the spring of 1943. Rooted and unrooted cuttings were furnished by the Division of Plant Exploration and Introduction from their Glenn Dale, Maryland station. From fifty to several hundred of these cuttings were sent to cooperator at the following locations: Statesville, and Chapel Hill, North Carolina; Knoxville, Tennessee; Gainesville, Florida; Columbia, South Carolina; Bogalusa, Louisiana; Auburn, Alabama; College Station, Winter Haven, Brownwood, and Chillicothe, Texas. Most of the collaborators at these locations had very poor success with this planting stock. The reasons given included delayed arrival, poor local weather conditions at the time, lateness of the season, etc. In the winter of 1943-44 additional material was sent to most of those locations listed, but although the stock arrived at a better time of the year in this case the results were nevertheless not very good in most cases. At the present time there are plantings at only three locations. A fairly successful one at the Agricultural Experiment Station at Knoxville, Tenn., where the planting is under the care of Dr. Brooks D. Drain of the Horticultural Department. At Chillicothe, Texas, Texas Agricultural Experiment Sub-station No. 12, Mr. Quinby, Superintendent, has just a few plants. Our principal planting is at Wellborn, Texas, where Mr. C. A. Russell of this Division attempted last spring to expand his plantings by means of stem cuttings. He made almost 500 such cuttings but in spite of all the care taken with respect to watering, etc., not a single one of these rooted. At Mr. Russell's request this winter additional information concerning the technique used in making stem cuttings at Glenn Dale was obtained and forwarded to him in the hope that a new attempt made this spring would be more successful, if so a substantially new planting will be gotten under way. Dr. Drain at Knoxville is also expected to make further propagation of this plant but we cannot be altogether certain of this at this time.

It will certainly take several years before new plantings started from cuttings will make any considerable crop of roots and it will be seen, therefore, that there is no expectation that any large quantity of roots will become available for some time. However, if as many as 500 cuttings can be established successfully we believe that a supply of roots adequate for your purpose will probably be obtainable from a single planting of that size.

Dr. Merton Deroza, Division of Insecticide
Investigations, BEPQ

Oct. 10, 1952

Dr. L. W. Pultz, Prin. Horticulturist, Division of
Tobacco, Medicinal, & Special Crops, EPISAS, Beltsville
Report on field trials of Tripterygium wilfordii at College Station, Texas

We are attaching hereto a report prepared by Dr. Murray L. Kinman
on the trials with Tripterygium wilfordii near College Station,
Texas from 1943 to 1952.

On page 6 of this report Dr. Kinman gives his opinion of the feasibility
of establishing a larger planting in that area at this time. Under
present conditions it seems very unlikely that we will be able to
undertake any large expansion of the planting at College Station,
Texas. The plant seems to grow and survive in that location but in
view of the fact that more rapid growth has been observed at various
places in Tennessee, Georgia, and Louisiana we feel that any ex-
pansion should be made in that general area rather than in south
central Texas.

When you have had time to read this report I shall be glad to talk
with you again about the matter and see if a final conclusion can
be reached on the advisability of attempting a planting in any
location.

Attachment

Dr. W. E. Hodge, PEI

Oct. 24, 1952

Dr. L. M. Pultz, Principal Horticulturist, TM&SC

Experiments with the Culture of Tripterygium wilfordii

Attached are some more or less summary accounts of the experimental work with Tripterygium wilfordii carried on by the Division of Tobacco, Medicinal, and Special Crops.

Mr. Sievers' memorandum of March 30, 1950 to Dr. Beroza is a good general summary of the results of the work from 1943 to 1950. One correction should be noted -- Mr. Sievers states that only three of the plantings were growing in March, 1950. We learned later than an additional planting at Bogalusa, La. survived and grew very well. On January 18, 1951 we received 89 pounds of dried roots from our cooperators at Bogalusa (U. S. Field Laboratory for Tung Investigations). They informed us "that 25 plants (P.I. No. 113544) were received from Mr. Sievers in 1943. The plants were fertilized and hoed out for two or three years but after that received no special care except for general disking. The plants finally attained a height of 3 to 5 feet and a spread of 6 to 8 feet. The 89 pounds of roots represented the yield from 24 plants."

The roots from Bogalusa were turned over to the Division of Insecticide Investigations, BEPQ, for Dr. Beroza's use. Also, as Dr. Kimman's report shows, various small lots of roots from College Station have been turned over to the same organization at various times since 1943. More recently on August 12, 1952 approximately 50 pounds of dried roots from Tifton, Ga. were also furnished that division. At the present time we have certain knowledge of the existence of only nine plants that remain from the various 1943 and 1944 plantings. These are located at Wellborn, Texas under the care of Dr. Kimman. We feel sure that two or three additional plants are still growing at Chillicothe, Texas and there may be scattered plants remaining from the various trials at other locations, particularly at Knoxville, Tenn. Dr. Kimman's report is the only continuous account we have of any single planting. My memorandum of October 10, 1952 to Dr. Beroza will give you an idea of the present status of the T. wilfordii experiments.

Please return to this division Dr. Kimman's report and the memoranda dated March 30, 1950 and October 10, 1952 to Dr. Beroza.

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