

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
NEW MEXICO STATE HIGHWAY DEPARTMENT
NEW MEXICO AGRICULTURAL EXPERIMENT STATION
AND COLORADO AGRICULTURAL EXPERIMENT STATION

recommend the naming and release of 'Tierra' bladdersenna for commercial production and sale of seed and plants.

INTRODUCTION

Scientific Name: Colutea arborescens (Linn.)

Common Name: Bladdersenna

Varietal Name: 'Tierra'

Other Identification Used: 4523T, A-13174

Origin and Selection: 'Tierra' bladdersenna was obtained in 1950. Seed was selected from an accession originally received from Herbst Bros. (out of business). Plants produced from this seed were evaluated at the Albuquerque Nursery as A-13174 and put into field plantings in Colorado, New Mexico, and Arizona. This variety has been grown at the Los Lunas Plant Materials Center since 1963. The species is native to southern Europe and northern Africa, and was introduced to the United States years ago.

Description: This rapid growing, deciduous, drouth resistant shrub reaches 12 to 15 feet tall on favorable sites when mature. It has an open vase branching habit. Some of the branches tend to be relatively short-lived; however, new ones are formed from the root crown.

This legume has compound leaves with dull-green leaflets. These leaflets are almost oval except for their abruptly pointed tips.

The attractive, bright-yellow flowers are shaped like those of most legumes. Flowering begins in late May and continues until early September at the Los Lunas PMC. The flowers are pollinated primarily by bumble bees.

The seed matures from July to October inside the fruits which are indehiscent inflated pods. The flattened, sickle-shaped seeds are brown in color when ripe and about 1/32 of an inch thick and 5/16 of an inch wide. The attractive, 3-inch long, bladder-like pods are greenish at first, but turn to a beige color as the seeds mature.

Performance: Excellent stands of 'Tierra' have generally been obtained under irrigation at the Los Lunas PMC provided proper seed treatment is used. Since the seeds have hard coats, germination and emergence of seedlings tend to be staggered. Consequently, seedlings are quite variable in size. This has some advantages because the larger plants can be used for bare-root material while smaller ones are suitable for potting or for retaining in the growing beds for another year.

Record of field plantings of 'Tierra' bladdersenna made in Colorado and New Mexico prior to 1969 are available. Some of these older plantings are still in existence and have done very well. At least 47 plantings were made in Colorado and New Mexico between 1969 and 1976. Potted plants were used in 21 of these. Half or more of the 'Tierra' plants survived in 34 percent of the plantings. Performance was good on sites where the variety was adapted. The rapid growing plants produce seed within a few years on favorable sites. Some of this seed that falls to the ground germinates and has produced additional plants at test sites. Recent review of these old sites have shown no signs of the plant becoming a potential weed, even after 20 years.

Area of Adaptation: This variety is known to be adapted to much of Colorado and New Mexico at elevations of 3,500 to 7,000 feet. The species is not hardy enough to survive the winters in the northern United States. This drought-resistant shrub grows in most any soils. It prefers sites which are exposed to full sun.

Use: 'Tierra' bladdersenna is a useful stabilization plant, especially in highway and windbreaks plantings. It has potential for use on mine spoils and landscape plantings. The yellow flowers and inflated seed pods add to its attractiveness in landscape plantings. It provides suitable habitat and some food for small animals and birds.

Propagation: This is a seed propagated variety. Seed is sometimes produced as early as the second growing season. Collecting the seed is not difficult provided it is done before the pods pop open.

The recommended time of seeding is during the fall or early winter, but at least prior to February. This gives the seed a chance to receive natural stratification and thereby soften the hard seedcoats. A stand of seedlings is likely to be obtained by late April using this procedure.

Stands can be obtained by planting the seed during the spring or early summer provided the seed is boiled in water for ten minutes and then soaked in water for two days just prior to seeding. It takes about three weeks to get good emergence after using this treatment.

'Tierra' can be transplanted either **as** bare-root or potted plants.

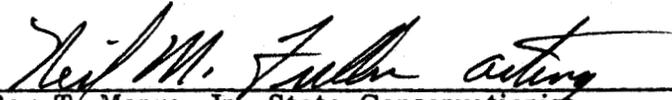
Source of Seed and Plants: Breeder seed and plants will be maintained by the **Los Lunas Plant Materials Center**. Recognized seed classes - Breeder, Foundation, Registered and Certified. Will be available for establishing seed production fields. Seed and plants for these uses will be available from the **Los Lunas PMC** through New Mexico Crop Improvement Association or other foundation state agencies. Seed **is** on hand for the initial commercial production of plants **or** limited distribution of seed.

References:

- Bailey, **L.H.**, 1935. The Standard Cyclopedia of Horticulture, Vol. I, Maximillian **C.**, N.Y. 1200 pp.
- U.S.** Forest Service, 1974, Seeds of Woody Plants in the United States, **USDA**. 883 pp.

Supporting data have been presented to the Varietal Release Committees in New Mexico, Idaho and Colorado; and 'Tierra' bladdersenna has been accepted for release to commercial growers and users.

Approval signatures:



Ray T. Margo, Jr., State Conservationist
United States Department of Agriculture
Soil Conservation Service

4/30/85
Date



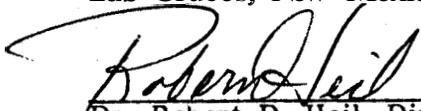
Thomas N. Shiflet, Director
Ecological Sciences and Technology Division
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Soil Conservation Service

Apr. 19, 1985
Date



Dr. Dinus M. Briggs, Associate Director
Agricultural Experiment Station
New Mexico State University
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28 March 85
Date



Dr. Robert D. Heil, Director
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4-11-85 -
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Mil Fleig, Landscape Architect
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5/2/85
Date