

## PLANT MATERIALS TECHNICAL NOTE

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### **STRETCHBERRY *FORESTIERA PUBESCENS*: A SHRUB FOR POTENTIAL CONSERVATION APPLICATIONS IN MONTANA AND WYOMING**

by

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Stretchberry

### **INTRODUCTION**

Stretchberry (also referred to as New Mexico forestiera, New Mexico olive, New Mexico privet) is a medium- to tall-stature deciduous shrub native to the southwestern United States including California, Nevada, Arizona, Utah, Colorado, New Mexico, Texas, and Oklahoma. Formerly *Forestiera neomexicana* Gray, the currently accepted nomenclature is *Forestiera pubescens* Nutt. var. *pubescens* (PLANTS, 2009). This species performed well in trials at the USDA-NRCS Plant Materials Center at Bridger, Montana and is worthy of further testing in Montana and Wyoming.

### **DESCRIPTION**

Stretchberry is a multi-stemmed, perennial shrub. In Montana expect a mature height of approximately 6 to 8 feet under dryland conditions in lower precipitation zones, and 12 to 15 feet under ideal conditions (high soil moisture, good nutrition) (see FIGURE 1). It has numerous, sometimes interlocking branches, and is capable of sprouting from the base.



FIGURE 1. Stretchberry Living Snowfence (right)



FIGURE 2. Stretchberry Foliage

It has light green to grayish green oblong simple leaves (see FIGURE 2). New bark is smooth and light gray to brown; old bark tends to be smooth and light gray. The yellow flowers are inconspicuous and borne in dense clusters in the axils of the previous year's leaves. This species is dioecious, with male and female flowers on separate plants. Stretchberry blooms in Bridger, Montana in late March or early to mid-April.

Stretchberry fruit is a round to oblong drupe (berry) that matures to a dark bluish-black to black color in late August to September in Bridger (see FIGURE 3). Fruit retention tends to be moderate and is often lost to birds before falling to the ground.



FIGURE 3. Stretchberry Fruit

Stretchberry is comparable to skunkbush sumac *Rhus trilobata* in function and use. It tends to form dense, almost impenetrable hedges, although the branches of stretchberry are more linear and erect than skunkbush sumac, and small branches more supple as well.

### **FIELD TESTING**

Seedlings of 'Jemez' stretchberry were planted with 'Big Horn' skunkbush sumac in 1976 in a living snowfence and field windbreak at the Plant Materials Center at Bridger, Montana, in the south-central region of the state. 'Jemez' originated from a single seed source collected near Jemez Springs, New Mexico in 1939. It was formally released in 1978 by the Los Lunas, New Mexico Plant Materials Center for conservation applications in the southwestern United States.

Plants in this windbreak performed consistently well, with no signs of cold temperature injury or damage from winter desiccation or drought over a 33-year period. In addition, no serious insect or disease problems were observed. It should be noted that this planting receives supplemental moisture and fertility as a result of the cultivation of adjacent fields of agronomic crops.

Test seedlings of 'Jemez' stretchberry and a second stretchberry collection (A-35722) were also planted in an irrigated woody-plant Field Evaluation Planting at Bridger in May 1976. These plantings were evaluated until 1984. Despite early stress from weed competition in 1977, and herbicide damage in 1978, the 'Jemez' plants maintained good vigor and percent survival (84 percent) in 1984, the last year of evaluation. In the fall of 1981, plants averaged 5.8 feet in height, ranging from 4.0 to 7.3 feet. There was a directional pattern of decreasing height growth and vigor indicating some form of increasing environmental stress. Plant width averaged 4.9 feet, ranging from 3.0 to 6.8 feet in spread. Stretchberry plants from seed source A-35722 were planted in a row adjacent to 'Jemez', and averaged 6.3 feet in height in 1981, ranging from 5.0 to 7.4 feet. Plant width averaged 4.7 feet, ranging from 2.3 feet to 7.0 feet in spread. Percent survival of A-35722 in 1984 was 100 percent. These plants also demonstrated a pattern of increasing stress along the row.

### **CONSERVATION USES**

Stretchberry has several conservation applications including windbreaks, shelterbelts, and living snowfences. It can be used in wildlife plantings for nesting, cover, and food. Although the species performs best when provided with adequate soil moisture, it is considered fairly drought tolerant and can be used in Xeriscapes<sup>®</sup> (as a multi-stem shrub or small, single-stemmed tree with pruning) and for mine land reclamation. Planting density varies by practice and location, ranging from 20 to 300 plants per acre. Stretchberry averages about 35,800 seeds per pound.

### **AREA OF ADAPTATION**

The species is well adapted to annual precipitation zones ranging from approximately 9 to 24 inches, growing best in soils with a pH range of 7.0 to 8.5. Although growing well in Montana in areas characterized by a 135-day growing season, it is described as needing a minimum of 160 frost free days.

Stretchberry should perform well in most locations in eastern Montana and Wyoming, although it should be used cautiously in low precipitation areas (less than 9 inches of annual precipitation), in cold regions (USDA Hardiness Zones 2 and 3), and elevations above 5,000 feet. 'Jemez' is currently the preferred and recommended seed source. It may do well in lower elevation locations in western Montana and Wyoming, although field trial results are not available at this time.

### **AVAILABILITY OF PLANTS AND SEEDS**

Plants and seeds of stretchberry are typically unavailable in local nurseries. For availability of plants and seeds of 'Jemez' stretchberry, contact the Los Lunas, New Mexico Plant Materials Center for limited quantities of seed and the Colorado State Forest Service Nursery for seedlings.

## **REFERENCES**

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