NOTICE OF THE NAMING AND RELEASE OF 'BONITA' SOAPTREE YUCCA FOR USE IN RESOURCE CONSERVATION PLANTINGS

The USDA-Soil Conservation Service, the New Mexico State Highway Department, and the New Mexico Agricultural Experiment Station announce the naming and release of 'Bonita' soaptree yucca (Yucca elata Engelm.) for commercial production and sale of seed and plants. Soaptree yucca is the state flower of New Mexico.

Origin: The original seed of 'Bonita' soaptree yucca was collected in February 1966 from several plants growing about two miles west of Gage, New Mexico. It was designated as NM-748. Additional seed has been collected from the same plants more recently. The seed was used at the Los Lunas Plant Materials Center to produce plants for evaluation at other plant materials centers and at various locations in Colorado and New Mexico.

Description: This woody plant reaches heights up to 20 feet or more in its natural range. The trunk diameter, when mature, is 6 to 12 inches. Older plants may have several branches from either the base or trunk. The straight, narrow, tapering, sharp-pointed leaves are evergreen, but older ones die and hang down forming a thick thatch on the trunk and branches.

The plants begin flowering in June at the northern limits of their natural range, but start earlier further south. The bell shaped flowers are white with a light green or yellow tint. Each has three petals and three sepals which are alike. The flowers are borne on tall (up to 8 or more feet) woody seed stalks which become quite hard when dry.

The thin black seeds are formed in capsules which dry and persist late into the season. Numerous flowers are formed at Los Lunas, New Mexico, on plants grown from seed, but no seeds have been produced. Apparently, this is north of the range of the specific moth needed to pollinate the flowers.

Performance: The performance of irrigated 'Bonita' soaptree yucca has been good in comparison to other species of yucca and woody plants at the Los Lunas PMC. Good stands have been easy to obtain under irrigation if high quality seed was used and optimum moisture conditions were maintained.

The first flower stalks to be produced on plants at the Los Lunas PMC were seven year old plants. Twenty percent of the plants produced flowers at this time. No individual plants have produced flowers consecutively at Los Lunas.

'Bonita' was field tested in at least 55 plantings in Colorado and New Mexico between 1968 and 1976. The plantings were made in such places as highway medians and interchanges, highway rest areas, school grounds, on mine tailings, and homesites. Potted plants were used in 33 plantings

with bare-root plants being used in the others. The survival rate was 50 percent or more in 19 plantings. Several plantings were failures because of poor site or no maintenance.

Excellent survival can be obtained on suitable sites if a reasonable maintenance program is followed.

Areas of Adaptation: Transplanted 'Bonita' soaptree yucca plants have survived for several years as far north as Brighton, Colorado. This is farther north than the natural range of the species which is southwestern Texas and south into Mexico from central Arizona and New Mexico at elevations from 1,500 to 6,000 feet. The range of adaptation can be extended by using nursery produced plants. The plants are cold-hardy and drought resistant, but can be killed by too much water on heavy soils. Sandy and loamy soils are preferred to clay soils.

Uses: 'Bonita' soaptree yucca will be used primarily in ornamental plantings, especially where the supply of supplemental water is limited. Maintenance requirements are minimal. The plant also has some value for soil stabilization on dry sites.

Propagation: This variety will be propagated by seed. The seed should be planted during May and covered with about 1/2-inch of soil. Most germination then occurs within two weeks if temperature is high enough (minimum temperatures above 36 degrees) and soil moisture is adequate.

Seedlings generally need to be two years old for potting or to be large enough for bare-root planting. The leaves of transplanted bare-root plants frequently lay flat on the ground or are limp the first growing season. This characteristic makes some people think the plants are dead.

Plants over two feet tall can be produced within five years if seedlings are space-planted in a nursery and receive adequate water and fertilizer.

New plants can arise from sprouts of larger roots that remain in the ground after older plants are dug.

Source of seed and plants: The Los Lunas Plant Materials Center will be responsible for maintaining a supply of breeder seed. Limited numbers of live plants will be available for establishing seed source nurseries in southern Arizona and New Mexico or other locations where seed can be produced. Seed and plants for these uses will be available from the Los Lunas PMC through resource conservation districts. Seed will be on hand for the initial commercial production of plants.

Approved by:

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