

Catskill

PRU
11

PLANTING GUIDE FOR DWARF SAND-CHERRY
(Prunus pumila var. depressa)

Plant Symbol: PRPUD

PI- 9051508

The information which follows is subject to modification as experience is gained with dwarf sand-cherry. These recommendations are based upon limited experience gained at Big Flats PMC, and from a few preliminary field plantings in Sullivan Co., NY.

INTRODUCTION

This botanical variety is a relatively uncommon native woody plant that occurs along gravelly and sandy beaches (lakes, streams, and rivers). It is found from the Gaspé Peninsula to Ontario to the New York-Pennsylvania border (Delaware R.). This cherry prefers calcareous soils. This plant was called to our attention by George Stang, District Conservationist from Sullivan Co., NY who found it growing along the Delaware River. The collection we made there is from the southern end of the range, according to Gray's Manual of Botany.

Dwarf sand-cherry forms a prostrate groundcover which is tolerant of droughty conditions. In the literature the species is referred to as sand-cherry. To avoid confusion with the other 'sand cherries' such as P. pumila, P. susquehanae, and P. Besseyi, which are erect and thicket forming to 7 feet in height, we have added the modifier 'dwarf' to the common name.

Dwarf sand-cherry roots very freely along the prostrate woody stems and appears to create a massive root structure that is out of proportion with the top growth of the plant. This root system and the drought resistance it provides to the plant, appear to give this species strong potential as a conservation plant. The attractive, neat appearance of the groundcover should make this plant desirable for use in urban and landscaped environment as well.

TECHNICAL DESCRIPTION

Prunus pumila var. depressa forms prostrate mats to 2 meters across, or greater. It has new shoots which are reddish in color and shiny, often having adventitious roots forming along their length as they contact the ground. The leaves are deciduous, pale green above and whitish below, and narrowly obovate in shape. The petioles are 3-10 mm. long and stipules are 4-8 mm. long. The flowers are white (with a pink cast?) 1.2-1.5 cm. broad, resulting in reddish-purple to purple-black fruit that are about 1 cm. in diameter

containing a single stone 4-6 mm. in diameter. At Big Flats, the fruit is slightly larger. The fruit is acid.

No serious pests have been identified at Big Flats, or seen at the collection site on the Delaware River. The species *P. pumila* is very susceptible to twig blight, but we do not know if the botanical variety is affected.

Dwarf sand-cherry seed germinates in the spring after sufficient stratification. The seedlings are fairly strong, but put most of the initial energy into root system development. Once the roots have established, the seedlings have good drought tolerance, and stem elongation takes place. First year stem length is typically 1-2 feet. The second year the growth is much more prolific and dense.

PLANTING OBJECTIVES AND SITE SELECTION

We have much to learn about the range, site adaptation, and usefulness of this plant. The initial target sites should be sandy and gravelly shorelines of streams and lakes. These should be sunny sites with protection/isolation from livestock and people traffic. The soil pH should be determined. It is not known how this plant reacts to extended inundation, so plants should be placed up and down the bank to evaluate this condition. Another unknown is the tolerance of dwarf sand cherry to salt.

We do not have a similar plant to use as a standard of comparison, but survival rates could be compared to 'Bankers' and 'Streamco' willow rooted cuttings on dry sites.

Future sites should include dry, sunny banks that do not involve water bodies. Dwarf sand-cherry should be tested in mixtures with prostrate junipers, however the cherry will have much stronger vigor and rate of spread. This plant has ornamental potential. It should be included in plantings where attractiveness is important as well as erosion control.

PLANTING STOCK

Dwarf sand-cherry should be planted as one year old, bare-root stock. We will be growing both seedlings and rooted cuttings initially, but we expect that seedlings will be the preferred planting stock. The growth form of this plant makes it more difficult to package and ship than standard form tree and shrub seedlings.

SITE PREPARATION

The site should be relatively free of competing grass sod. The soil surface does not need to be smoothed as would be done for a lawn planting, but gross irregularities should be graded out. No fertility amendments are recommended during the establishment year of woody plants.

PLANTING DATE

Planting should occur during the spring prior to June 1, or in the fall after October 10. The stock should be dormant at the time of planting.

PLANTING PROCEDURES

This plant has a strong root system which should be properly placed in the planting hole. Avoid J-rooting by digging holes of sufficient size. Do not add peat moss or manure. The recommended planting density is one plant per 4 square feet. The plants should be planted in a block(s) rather than scattered among other vegetation.

WEED CONTROL

Straw or other biodegradable mulch is recommended around each seedling. Plastic mulch or weed control fabric is not recommended because these will hinder the rooting of dwarf sand-cherry. Herbicides or mowing are not recommended because there is no way to spray or mow under the canopy.

EVALUATIONS

The planting should be evaluated in late summer for five years. Minimum evaluation factors are:

establishment year-

- number surviving
- average plant width
- damage to stand and cause
- soil pH

year 2-5

- winter injury, if any (late spring)
- number surviving
- average plant width

average percent groundcover under
plants
damage to stand and cause
effectiveness of plant
wildlife usage

Send a copy of the evaluation to the Plant Materials
Specialist by November 1.

prepared by: John A. Dickerson, Plant Materials Spec.
Syracuse, NY
9/1/93

Long Range Plan For Field Planting

Plant to be Tested: Prunus pumila var. depressa

Common Name: dwarf sand-cherry

PI Number: 9051508

Project Number:

Conservation Use: Shoreline Stabilization- sands or gravels

Background: currently there are no cultivars of dwarf sand-cherry available for use. This plant appears to have attributes for shoreline and streambank use where short vegetation is needed. It may also have urban conservation uses in low maintenance, droughty landscapes.

Expected Duration of Planting Evaluation: 5 years

Minimum Size of Field Planting: 50 plants

Amount of Plant Material Required: 1 plant per 4 sq. ft.

Standard For Comparison: 'Bankers' willow for survival comparison only. No equivalent plant exists for direct comparison.

Allocations: A consolidated long range schedule will be developed (and attached to this document) to include the needs of participating states. Once completed, it will represent an allocation to each identified field office for the specified year. Annual adjustments will be made to accommodate shortfall or surplus production.

PMC Production Responsibility: Big Flats

Planting Guide: Attached

Evaluation Requirements: annual, with form to be supplied by the Plant Materials Specialist.

Prepared by: Plant Materials Specialists in the Northeast

Long Range Schedule for Field Plantings

Dwarf Sand-Cherry, PI- 9051508

Duration: 1994-1997

Plants per Planting: 50

<u>STATE</u>	<u>YEAR</u>	<u>MLRA</u>	<u>FIELD OFFICE</u>	<u>SOIL</u>
	94 95 96 97			

NY

VT

NH

ME

MA

CT

HI

NJ

MD

DE

PA

WV

MI

OH

Totals

Example

2-3 plantings / state 7

Long Range Schedule for Field Plantings

Dwarf Sand-Cherry, PI- 9051508

Duration: 1994-1997

Plants per Planting: 50

STATE	YEAR				MLRA	FIELD OFFICE	SOIL
	94	95	96	97			
NY	X				140	Bath	Mardia
			X		101	Sodus	Beach sand
VT		X			143	Waitsville	
				X	144B	St Johnsburg	
NH	X				144A	Essex	Bench Sand
			X		144B	Woodsville	
ME		X			144B	Westbrook	Beach sand
			X		143	Prosque Isle	Hindley
MA							
CT							
RI							
NJ							
MD							
DE							
PA							
WV							
MI							
OH							
Totals							

