

Field Production of *Cornus* Cultivars

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INTRODUCTION

At Shadow Nursery we are propagating *Cornus florida*, *C.* and *C. florida* × *C. kousa* cultivars by T-budding. This is the eighteenth year we have used this propagation method in producing these dogwoods on a commercial basis.

SEEDING PRODUCTION

Seed Collection and Handling. *Cornus florida* seed are collected by local people and brought to the nursery where we purchase the seed by the pound. The seed are soaked in water for two days before being cleansed with a mechanical seed cleaner. The cleaned seed are then spread on burlap or shade cloth to air dry preferably in light shade. The seed are then sacked in burlap or loosely woven bags and hung until planting time.

Sowing Period. During October or November, when weather conditions are good, the seed are planted in 6-ft rows which have been ridged and a v-shaped furrow 5 cm (2 in.) deep has been pressed into it. The furrow is then covered with hardwood sawdust and cultipacked to lessen wind erosion of the sawdust. The middles are then broken with a submoisture plow for optimum rain penetration and to prevent soil erosion.

We plant the seed with a Plantet Junior vegetable seed planter. This is the most economical way we have found to plant the seed without cracking them. The seed are thickly planted so that the emerging seedlings help protect each other. Another advantage in using this method is there are less side branches to remove. I have seen the first emerging seedlings get killed from a late frost and yet there would be enough seed to germinate for a sufficient stand for budding.

Seedling Growth. The dogwood seed begin to germinate about 15 March to 1 April, depending on weather and soil conditions. This is a crucial time period in the germination process. If water puddles on the germinating seed for 12 to 24 h the seedlings are lost. Also, seedlings may need to be protected from frost if possible. As soon as the seedlings are 2 to 3 in. high, drip irrigation, fertilizer, fungicides, and insecticides are applied as needed.

BUDDING

Budwood Selection. Budwood is cut from appropriate cultivar stock blocks or from 1-year buds that are in good growing condition. It is important that the budwood and buds be in a good growing condition. This can be accomplished with irrigation, if necessary.

T-budding. Our normal budding schedule is usually 15 Aug. to 1 Oct. About 2 weeks are needed for the bud to knit before any frost occurs. Before budding begins the seedlings are thinned by cutting the unwanted seedlings underground with clippers.

This prevents the needed seedlings from being loosened. We thin the seedlings to approximately 5 to 8 cm (2 to 3 in.) apart. The seedlings are extremely tender at this point and extreme caution must be made in handling both the seedling and the bud to prevent bruising. The bud is cut from the budstick and inserted into the seedling and wrapped with a rubber budstrip. The T-bud is budded as low as possible on the southwest side of the seedling. Since this is the direction of the prevailing winds, we get less breakage from wind storms.

The budded seedlings are root pruned after becoming dormant. This is usually about the middle of November. This helps to insure a good fibrous root system. The following spring (late Feb. to early March) the seedlings are cut off just above the buds and all suckers removed to give optimum conditions for the bud to swell and grow. Drip irrigation, fertilizer, weed control, fungicides, and insecticides are applied during the growing season as needed.

By fall, if we have not experienced an adverse act of mother nature (hail storm, wind storm, etc.) we should have a good crop of *Cornus* cultivars.