

PROPAGATION OF *JUNIPERUS SCOPOLORUM* 'WICHITA BLUE' BY CUTTINGS

T. MURRAY ALWARD

Riverbend Farms (Ontario) Ltd.

P.O. Box 31

Port Burwell, Ontario N0J 1T0 Canada

Approximately 10 years ago, we decided to propagate *Juniperus scopolorum* 'Wichita Blue', from cuttings at Riverbend Farms. Our research pointed out that *J. scopolorum* cultivars were fairly difficult to root from cuttings and generally grafted. With all the outside information gleaned plus our own ideas, a recipe evolved that works for us. We presently produce this plant exclusively from cuttings. These cuttings are stuck in the same benches in our propagating polyhouse along with all our other evergreen cuttings.

'Wichita Blue' is a consistently good performer, disease and drought resistant, full in form, and exceptional in colour. This plant is always in demand, a classic blue upright juniper. We like to field-grow this plant to perfection.

Following is our procedure for the propagation of *J. scopolorum* 'Wichita Blue'.

Timing and selection. On November 20th, select 8 to 12 in. shoots from vigorous 2-year field-grown plants, containing new hard juvenile growth always dark at the base for 3 to 4 in. We use 2-year field plants exclusively as a cutting source. These 2-year plants have never been pruned, and the shoots make perfect cuttings. We use Felco #8 pruners and plastic pails for the harvest and take 1 to 2 days supply at a time.

Storage. All fresh cuttings from the field are put through a Benlate rinse at the rate of 1 tsp. Benlate per gallon of water. The cuttings are placed on a poly tarp on a cool barn floor and covered. This storage method provides excellent humidity and we add water as needed or snow if available. Occasionally during warmer weather, the tarped cuttings are placed on the floor of our cold storage and cooled down to 33° F.

Cutting Preparation. Cuttings are made approximately 8 to 10 in. long with hard dark wood at the base extending 3 to 4 in. up the stem into the softer top growth. The cutting resembles a scion used in grafting. We make a fresh basal cut, the bottom 1¼ in. is double slit wounded with the wound stopping 1/16 in. from the base to keep a firm bottom. The tops and sides of the cuttings are not trimmed.

Chemical Treatment. The hardwood base of the cutting is dipped 1½ in. into a fungicide solution at the rate of ½ tsp Benlate

in 7 oz of water. Cuttings are allowed to dry slightly, then dipped into a 1% (10,000 ppm) IBA, 1/2 in. deep, holding for 5 sec. We get our hormone from Plant Products, Brampton, Ontario under the name Stim-Root. We usually dip several cuttings at a time, filling a 20 x 14 in. plastic tray, before going to the polyhouse for sticking.

Propagation Facility. We use a 27 x 96 ft double poly house. One 8 ft wide central bench with two 4 ft wide side benches extend through the polyhouse. The benches are 32 in. high. The walkways are patio stones. We have black poly side skirts and landscape fabric bottom liners over the expanded metal bench bottoms. Each bench has a separate circulator pump and thermostat controlling a wood-oil boiler. Hot water provides bottom heat through 1½ in. pipes. We use no fans or mist.

Sticking Cuttings. Our medium is perlite and peat (3:1, v/v). We use a 1½ in. lath strip 42 in. in length for spacing between rows. The spacing in the row is approximately 1¼ to 1½ in. The space varies with the size of the cuttings and the cuttings lightly touch. A butcher knife is used to cut a slit to stick the cuttings. A 42 x 47 in. section of bench holds approximately 1,050 'Wichita Blue' cuttings.

Comments. We hand-water one to several times per day as required. Benlate at 1 tsp per gal of water is used approximately each 2 weeks. Our polyhouse is like a bag with little ventilation through the winter. The polyhouse is not shaded until spring. Our humidity through the winter is always high. However, at night the area is allowed to dry off considerably. We attempt to provide 68 to 70° F bottom heat as a minimum. We are not concerned with fluctuating diurnal and nocturnal temperatures. In fact, it may be an advantage. On sunny days with clear plastic, our circulator pumps are often off. I call this solar zone heating, a natural high.

As the days get longer and warmer, the apparently dormant cuttings freshen; this is a good sign. Later in early spring when light becomes stronger and temperatures rise, when ventilation and extra watering become a necessity, the cuttings will root. After the cuttings are rooting overall, we give a weekly feeding of 10-52-10 until ready for potting.

We stick the 'Wichita Blue' cuttings first, starting November 20th, and pot them last often in June. Our 1989/90 records show 81% success for 13,000 cuttings stuck in November and 10,590 potted in June.

Our recipe has produced fine crops of rooted 'Wichita Blue' plants that have gone through our system and provided our customers with top quality plants. This procedure works very well for some other upright junipers. Try a 3-sec dip ¼ in. deep for *J. virginiana*, and *J. chinensis*. These evergreens usually root faster than the *J. scopolorum*.