

NEW CONIFER SELECTIONS

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Among the large number of varieties of conifers we grow at the nursery, we often find a new variation starting to grow. Some of these new plants are worthwhile growing, while others have to be discarded. We will keep some of them several years to watch their growth habits. I have some slides that will show some of these new varieties and their characteristics.

Juniperus horizontalis

This plant was selected from some seedlings of *J. horizontalis*. A good many had to be discarded. I kept three that were very compact and of a different shape. This plant is blue all summer, but when cold weather comes, it turns to lavender. It is a fast grower and resembles Bar Harbor, but the winter color is entirely different.

Juniperus horizontalis

This is another juniper from the same lot as the other one. This is very low-growing, compact, and takes less shearing to make a nice plant. It has finer foliage than the first one. It is also a slower growing plant and lower than Bar Harbor. It is very dense and compact. Four year old plants are not more than 4 inches in height. This plant does not change color.

Juniperus horizontalis

This is another of the juniper seedlings. The plant is different from the last one — a much faster grower, but still compact and dense in shape. It makes a nice plant. It is also a very low-growing plant and keeps its color, which is a deep green, all year.

Juniperus

This is another unnamed juniper that I found in a row of blue pfitzers, but it is different from any that I have ever seen before. It is a low grower and very compact. I have not sheared this one at all, as I wanted to see how it would grow. It is only about 10 inches high, but spreads out. The center is well-filled.

Juniperus scopulorum

This juniper was found in central Washington. It is a *scopulorum*, but differs from others by being quite full and of a good color. This plant has been in the field 4 years. It has a good root system and takes moving quite easily. This plant keeps its shape very well and has not been sheared.

Juniperus scopulorum

This juniper is a very slender plant, but is still compact and a good blue color. It does not need any shearing to keep it in shape. It has a good root system and is different from some of the other junipers.

Western Juniperus occidentalis

Most of the western junipers are not very good for ornamentals; this one has been in the nursery 5 years, is very slow growing, and is deep blue in color. As a rule the western juniper has a poor root system, but this one has a good system. I don't think this plant would take a very heavy wet soil.

Chamaecyparis (Cypress)

This is a cypress and is very dwarf. The color is a light green in summer but changes color in the fall to a reddish plum. I don't think it would take the weather east of the Cascade mountains as it is more tender than the junipers.

Mugho Pine

If a person wanted to select some real dwarf pine, the pumito strain would be very good to use. This plant has been in the field 4 years and several years in the seed bed before that. It has not been sheared at all, and it still keeps a round shape which is very dense and compact. It would be very good where a slow-growing pine is wanted. There are also very good to use for bonsai plants.

Dwarf Pyramidalis

The plant is similar to the regular *pyramidalis* except it is a very slow growing plant — about half as fast as the big ones — much more compact and keeps its shape very well. It is as hardy as the regular *pyramidalis* but fuller in shape and a deeper color.

Dwarf Norway Spruce

This plant was one that was found among Norway spruce seedlings, but is slow growing and compact. This plant is 9 years old and has not been trimmed. It was narrower when smaller but is growing a little wider now.

I will show some additional slides that illustrate how some dwarf plants will tend to grow back to resemble the parent plant. A great many times one branch will start from a compact plant, and if this branch is cut off, no more will grow again. Sometimes one branch will come out a different color such as gold or variegated — one branch on an azure cypress is quite gold in color, which is a contrast from the blue or azure color. A branch may be variegated either white or gold, but if cuttings are taken and rooted, the green plant will grow faster and dominate the color in some cases. The plant will have just a few variegated branches.

There are just a few of the new plants at our nursery that we have started lately. There are always new things to discover as we keep in this business.

MODERATOR SNODGRASS: Thank you, Harry, and remember, keep all the questions that you have in mind. You may want to know about the availability of some of these things. I know the Carlson's are starting a lot of little plants that won't be ready for a few years. I knew lots of you people have the

same ideas and are always looking for these new things.

Our next speaker is Mrs. Leona Drew, and she'll talk to us about cold-frame propagation. Mrs. Drew!

PROPAGATION BY HEATED FRAMES

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Propagation by this method has been used for many years. The results, in most cases have been equal to the more modern way, in greenhouses, with mist systems, and other modern conveniences.

First, location; this can be either inside of a lath house, or out in the open, provided the frames are shaded. The shade can either be permanent or controlled manually.

The construction of these frames is not expensive; in fact, this is an ideal way for young people, who are starting out on a shoestring, to get started in plant propagation. The frames are generally built, in length, of multiples of three-foot sashes. A frame, six feet in width by fifteen feet in length, seems to be the most advantageous. Whenever two frames are constructed together, back to back, they should be twelve feet in width, with the center four inches higher than the outside edges. Instead of using glass sashes, we find it more economical and easier to lift, to use a cover constructed of two pieces of angle iron put back to back at the center, to be used as hinges. The frame of the cover is made of 2 x 2 lumber, with plastic near-glass tacked on. Space 2 x 2's every eighteen inches to keep cover rigid. Plan for counter-balance weights so each fifteen foot section can be lifted with one hand and will stay where put.

Whenever the water table is low, the frame can be set so the bottom is a few inches below ground level. If excess water is a problem in winter, then the bottom of the frame should be raised enough to miss the ground water during heavy thaws or rain storms. The outside of frame can be constructed of wood or concrete, keeping in mind that all joints should fit as tight as possible. The tighter the fit, the better the frame retains moisture. Assuming the outside height is sixteen inches and center height is twenty inches, then put in four inches of sand as a bottom layer, then lay the electric heating cables. Cover with about two inches of sand. Then either four-inch deep flats can be set on this sand, or the rooting medium may be put directly on top of the sand, about four inches deep. We find it much easier to use the flats, as they can be filled and the cuttings put in them in the potting shed. Then the flats are set in the frames.

In the rooting of conifers, the use of sharp sand or perlite, with about one-third peat moss mixed in, seems to work very