

time was taken to wax all these things. Some of you old Boskoop people remember the old wax which was heated and sometimes got on fire—Hallelujah! what excitement! If the weather was right that day several of these items were planted right in the fields. No matter how cold, you go and plant. No planting machine, you sat on your knees on a board 8 inches wide and you planted everything by hand. There were two alternatives, freeze to death or get done, and in those times the word was “done”

In the fall we grafted hollies, roses, and clematis. Holly grafting was done in the later part of October; clematis was done about the same time. Roses were done later, but it was all hard work endlessly caring for these things. Then there was the outside spring job of grafting in the field, mostly on crisp cold days. Looking back on this I think we have come a very long way. All one does now is read the *Proceedings*, or the *American Nurseryman* and one picks up a tremendous wealth of information and advice. At this point, I could go into a discussion pro or con of some of the values written in these things but I am getting too old to argue. Nevertheless it is there for everyone to read and evaluate. My respect and admiration goes out to all the old real plantsmen who, sometimes under the worst conditions imaginable, made a success out of their operations.

Now we have mist systems, beautiful greenhouses, all the help we want from all sources. Computers are also in the act. We probably don't realize how lucky we are, but sometimes I doubt if we are any happier.

GRAFTING TREE PEONIES

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We have handled tree peonies for a long time, buying from Europe, then from Japan when our European sources dried up. Japanese suppliers we found to be not too reliable in supply—and naming especially—so we decided to propagate them ourselves.

Surveying the stock available to us, we felt that only the best would do. Up to this time we bought what the supplier offered, often inferior varieties. European varieties, while being developed from the same source, are quite distinct from Asiatic varieties in that they are usually fully-double, large-flowered, often so heavy that the stems cannot carry the bloom which then is hidden by foliage.

Asiatic varieties, in contrast, are of semidouble to double types with stiffer stems which carry the flowers well above the foliage. There are exceptions to both rules of course.

Tree peonies (*Paeonia suffruticosa*) are usually propagated by grafting on well-branched roots of *P. lactiflora*, the herbaceous peony. Grafting commences toward the end of August. We now dig our roots a few weeks before the actual grafting. When the roots have a rubbery feel they will not split away from the scion. We use triangling as the grafting method. We graft from 1-year wood, only one bud per scion is needed; indeed 2 buds have no advantage as only one bud breaks and grows usually. The stock plants can be cut back quite drastically as long as there are buds left near the ground on each shoot. Only one-year wood has well developed buds. Leaves are reduced but left on the scion—we feel it helps to knit the graft.

The graft is tied with rubber budding strips and all exposed surfaces covered with a wound dressing. The back of the triangle especially should be covered.

The finished grafts are plunged into a coldframe so that only the tip of the bud shows. The frame is kept shaded, watered and checked weekly. A fungicidal spray is helpful to prevent *Botrytis*. Any affected leaves have to be removed immediately. By November the grafts of most plants have knitted and all leaves are removed. The frame is then kept closed and shaded until spring; frost does not seem to hurt the plants.

In early spring two options are open for further handling. One is to remove the rubber and plant them out as deeply as possible (since the bud has only just started this cannot be too deep). The herbaceous root is only to be considered a nurse root; the deeper the tree peony portion is planted the sooner it will develop its own roots. Therefore, the second course of action is to be preferred. That is to leave the plants in the frame until fall (make sure that good spacing has been provided) and then plant very deep. The rubber budding strip has to be cut in spring. Quite often young plants do flower and any bloom developing has to be removed. We cut our plants back at least once to get a bushy plant using the wood for grafting.

There seems to be great confusion in the naming of plants. Japanese exporters often will send any variety you desire from the same cracker barrel. A few which we think outstanding, and have been true-to-name are;

'Godaishu'	white semi-double	} both vigorous growers
'Horme'	white semi-double	
'Tamafuyo'	pink semi-double—very good	
'Kamata Fuji'	purplish pink	
'Shogyu-kuden'	semi-double red	
'Kagura-jishi'	semi-double pink large	
'Alice Harding'	yellow, double	
'Yae-sakura'	pink semi-double	

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'Hinadi-jor'	pink semi-double
'Ubatama'	maroon, semi-double, large
'Dai-kagura'	semi-double pink, large

PROPAGATION IN THE LATE SEVENTIES

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Some of us can remember back quite a few years—let us say 70-75 years. This, of course, cannot be called ancient but neither is it new, so let us call it old. I want to dwell a couple of minutes on propagation in Boskoop, Holland. I recall propagation by hardwood cuttings where wounding was used with a double long cut which gave a larger surface for callus which meant also a better chance for rooting. Wounding was and still is practiced in propagation by layering. Even evergreens, such as junipers, in a somewhat crude way were propagated by cuttings on the north side of a windbreak. The medium, generally dredged out of a canal, was mud; later it was mixed with peat moss. The cuttings were inserted by pushing them into that mixture with the finger so that below the soil the cutting was "V" shaped with the base of the cutting heading up. Softwoods were grown too but this required either frames with double sash or a greenhouse.

At the age of 24 I came to these United States and worked one season at Hicks Nurseries where I was introduced to propagation in hotbeds and this was novel to me. The method used was a layer of fresh horse manure about 3 ft deep, wetted and packed down and covered with a layer of sharp sand 6 inches deep. The cuttings were covered with sash and shaded with cloth overhead on a wooden frame about 5 ft above the sash. The cloth was rolled up on dark days and every evening. The cuttings were kept moist by hand syringing according to the weather.

After spending 3 years in Painesville, Ohio and 3 years in Long Island I had the good fortune of joining the firm of The Rhode Island Nurseries. In 1924 we propagated about 300 sash of softwood cuttings at about 800 cuttings per sash (240,000) and at the peak of production approximately 500 sash (400,000 cuttings). All this was done in cold frames with about 70% shade and were kept moist by hand syringing 2-3 times a day. All those shades were carried on and off every day; it was really a chore.

After Mr. Vanicek, the founder of the business, passed away I was given a free hand in the propagation department and it was soon