

## Integrating Asian Species Into the Nursery®

### Harlan Hamernik

Bluebird Nursery, 519 Bryan St. Clarkson, Nebraska 68629 U.S.A.

Email: harlan@bluebirdnursery.com

Asia is the earth's largest continent, and therefore has the most diverse types of weather and soil conditions to make for greater influence on the evolution of plant material. It has the highest elevations and the lowest points in the world.

Some evidence points to the earliest of the plant world's beginnings on that continent. The largest concentration of the world's population have lived in the middle of Asia and have had a great deal of influence in selection and domesticating seed plants that probably originated and began their evolution there some 35 to 50 million years ago. During the Ice Ages, which began some 2 million years ago and created the glaciers, it greatly influenced the plants in far western and eastern China, causing many species to become re-adapted to much colder conditions, giving us a broader palette of plants that have the ability to grow in colder regions of North America. Some of those hardier strains probably started coming via the frozen Bering Straits with the predecessors of the American Indian.

China's similar soils and weather are not the only reasons their plants are adaptable and useful in the U.S.A. They are home to approximately 25,000 seed bearing plants in 3,000 genera and over 300 families, and that includes about 3,000 species of trees.

Much of that material can be used in breeding work simply for hybrid vigor, which could bring more hardiness and more food and lumber production and certainly more flower power and color.

In the last few decades, we've experienced an incredible number of exciting new procedures advancing the technology to propagate and develop new plants, other than seed. Today, tissue culture is a common tool, but I suspect that we will advance to even higher and more efficient technology, as we move to more cell fusion, in vitro fertilization; induced mutations; anther, ovule and embryo culture; embryo rescue; and gene transfer lab methods.

My interests:

- My interests began with perennials in the same family, Iridaceae. For instance, *Belamcanda* × *Pardanthopsis* gave me ×*Pardancanda*. *Pardanthopsis dichotoma* × *Belamcanda* can give you ×*Pardancanda* Dazzler Series.
- In Rosaceae, *Sorbus* × *Aronia* = ×*Sorbaronia*; *Sorbus* × *Cotoneaster* = ×*Sorbocotoneaster*; *Sorbus* × *Pyrus* = ×*Sorbopyrus*. As a note, China is rich in Rosacea.
- At the present, I'm having a great time making some new *Sedum* hybrids (Chinese sp.) simply by bringing them together and sorting out the seedlings. *Sedum tatarinowii* × *S. hylotelphium* tall hybrids give you a mix of intermediates from which to choose. The next crosses will be *S. tatarowinii* and *S. caudicola* 'Lidakense'.
- China is home to many *Clematis* species which provide opportunities for adding color, size, and vigor to the U.S.A. palette. Long-blooming, fragrant shrub Chinese *Clematis hexapetala* ×

*C. integrifolia* gives you color and fragrance. *Clematis integrifolia* Mongolian Bells, a 10- to 12-inch dwarf in pink, white, lavender, and blue that blooms well the first season. Other hardy Chinese clematis species include: *C. orientalis*, *C. tangutica*, *C. fruticosa*, and *C. rehderiana* 'Temple Bells'.

Other Asian species worth considering include: *Ginkgo*, good forms, *Acer palmatum*, *Acer pseudosieboldianum*, *Cercis chinensis*, *Syringa reticulata* subsp. *pekinensis*, *Prunus mira*, *Caragana microphylla* 'Mongolian Silver Spires', *Quercus robur*, *Weigela praecox* 'April Snow', *Viburnum lantana* 'Variegata', *Scutellaria baicalensis*, *S. resinosa*, and *S. scoridifolia*.