

## Continuing the Work of Two Great Mentors

Dennis Ledvina

When I observe the thousands of seedlings in my yard, I have to credit two good friends and mentors to their genetic heritage. The two mentors that have pioneered my work are Phil Savage of Bloomfield Hills, Michigan and Augie Kehr of Hendersonville, North Carolina.

I have known good friend and mentor Phil for many years and have made numerous trips to his Michigan home. I spent many weekends in their apartment and the hospitality given by Phil and his wife Tina was always superb. Tina always provided the best in gourmet meals and I could always look forward to the call "Phil and Denny, lunch is ready." Of course we had to always pollinate a few more flowers while lunch was getting cold.

Phil was constantly sending me pollen, bud wood, and calling me about the new hybrid that had just bloomed for the first time. I remember the time when Phil told me that he ascended to the very top step of his ten-foot stepladder to retrieve pollen of a new hybrid for me. The genetic pool that he has contributed include many original crosses involving *M. acuminata*.

Among some of his many accomplishments are:

*M. acuminata* × *M. campbellii* ('Phil's Masterpiece,' and 'Lennarth Jonsson')

*M. acuminata* × *M. 'Picture'* ('Torro')

*M. acuminata* × *M. sargentiana* var. *robusta* (several good pinks that remain to be named)

*M. Miss Honeybee,* × *M. kobus* var. *stellata rubra* ('Gold Star')

*M. acuminata* × *M. 'Dark Diva,'* ('Pink Royalty' and 'Coral Reef')

*M. acuminata* × *M. denudata* ('Goldfinch' and the world famous 'Butterflies')

*M. acuminata* × *M. sprengeri* 'Diva' ('Flamingo,' 'Barbara Nell,' and 'Peachy')

One of Phil Savage's accomplishments: *M. sprengeri* 'Diva' × *M. 'Picture'* ('Big Dude').



*M. sprengeri* 'Diva' × *M. 'Picture'* ('Big Dude' (see photo))

*M. denudata* 'Swada's Pink,' × *M. × veitchii* 'Peter Veitch' ('Helen Fogg')

Crosses involving *M. wieseneri*, *M. virginiana*, *M. fraseri*, *M. hypoleuca*, *M. tripetala*, and *M. macrophylla* ('Karl Flinck,' 'Fruit Cup,' 'Virginia Watson')

This list is far from being complete, but as you can see Phil has introduced some outstanding hybrids as well as creating an enormous genetic pool for future hybridizing.

I most recently visited with Phil in August of 2001 along with Chuck Tubesing and Bob Tomayer. It was an extremely hot and humid day as Phil led us through the front yard, identifying hybrid after hybrid. After a tour of the front, we paused briefly from the humidity while Tina served refreshments on the back porch. Our tour of the back nursery included a run-in with a nest of yellow jackets, which produced some rather unique dance forms by all of us. The afternoon certainly refreshed years of pleasant memories.

I have made over a half dozen visits to Hendersonville, North Carolina to work with and observe another great mentor, Augie Kehr. Augie would lead me through row after row of magnolias illustrating their

merits. I usually left the property carrying many bags of bud wood and plants. Not only was Augie a great mentor, but also his generosity resulted in him sending me many packages of bud wood and pollen. Augie was always kind, generous, and eager to share with other plant enthusiasts.

Of the over thirty magnolia cultivars Augie named and registered, some of the most outstanding are:

*M.* 'Daybreak,' which is a vivid pink being used extensively in future hybrids (see photo)

*M.* 'Colossus,' which is a much improved *M. sieboldii* selection and is producing some interesting hybrids with *M. grandiflora*

*M. acuminata* 'Patriot,' which is a colchicine induced octoploid that has proven to be a very fertile seed parent

*M.* 'Sunspire,' *M.* 'Gold Cup,' and *M.* 'Sunburst' are among the many outstanding yellow hybrids registered

*M.* 'Encore,' 'Two Stones', and *M.* 'Pink Perfection' are some of the excellent *M. kobus* selections

*M.* 'Southern Belle' is only one of the several crosses made with species in subgenus magnolia

My final visit with Augie was about a week before he moved from his magnolia paradise in Hendersonville. We toured row after row and observed his many accomplishments and viewed many seedlings that are yet to inspire the world. I left that day in a heavy thunderstorm as I felt the sadness in Augie's heart. Augie's last act of generosity was to send me pollen he collected on a trip to the west coast in the spring of 2001.

Phil and Augie frequently talked about their ideal magnolia hybrid. This hybrid was to be a clear and vivid pink, precocious, hardy, and bloom late enough to escape late frosts. I hope by crossing Phil's *M.* 'Pink Royalty' and Augie's *M.* 'Daybreak,' we can someday accomplish their goal. Neither magnolia is very fertile, but each year I get several dozen seedlings from that cross. Both have the genetic pool for an exotic pink (*M. campbellii* in 'Daybreak' and *M. sprengeri* 'Diva' in 'Pink Royalty') and both contain *M. acuminata* for hardiness and late flowering. It would be a real pleasure to name a good pink hybrid after each of these fine gentlemen.



Some other goals I am trying to achieve in hybridizing magnolias are:

- **A good pink *M. loebneri*-type flower.** *M.* 'White Rose' has about the best form with its wide tepaled non-floppy form. I have crossed it with *M.* 'Dawn', *M.* 'Leonard Messel', *M.* 'Pink Perfection' and *M.* 'Day-break' to develop a flower with the form of *M.* 'White Rose' and a good pink color.
- **A cup-shaped, deep yellow, precocious flower.** *M.* 'Gold Cup' has an excellent cup shaped flower that does not flop with age. I hope to intensify its yellow color by crossing it with *M.* 'Miss Honeybee' or *M.* 'Sunspire.'
- **A multi-tepaled, deep yellow magnolia.** *M.* 'Miss Honeybee' crossed with *M.* 'White Rose,' *M.* 'Encore,' and *M.* 'Waterlily' are some of the crosses I have made. Of the few that have bloomed so far, all have been a pale yellow.
- ***M. acuminata* × *M. grandiflora*.** I succeeded in making this cross in the late eighties and lost the plant to root rot. The cross was made at Phil's place involving *M. acuminata* 'Fertile Myrtle' with pollen of *M. grandiflora* 'Russet.' The cross was made on a very hot day and resulted in a carpel of less than ten seeds. Upon germination, the cotyledon of one was immediately recognizable as a hybrid. The plant remained evergreen in the greenhouse and I managed to graft a plant of it and Phil planted it on his property in August to test its hardiness. The plant was dead to the ground in spring and my greenhouse plant died of root rot. That is the sad story of this cross, which I have been unsuccessfully trying to repeat every spring.
- ***M. grandiflora* hardy into zone five.** This project involves planting seed from the most northerly thriving trees and planting them out in great numbers to select for hardy trees. If anyone has a hardy tree in zone 5 or northern zone 6, please let me know if you can provide seed.
- **A red/pink flowered *M. grandiflora*.** I have tried to cross *M. liliflora* with *M. grandiflora* for several years and the result has always been a formed carpel, which would develop until the middle of July and then abort. Because of the wide cross, the theory is that an embryo has formed but the endosperm does not develop. This summer, I sent several of these developing seeds to the Horticulture Department at the University of Wisconsin to put into embryo rescue culture. At this



DENNIS LEDVINA

An Augie Kehr cross, the vivid pink *M.* 'Daybreak' is being used extensively in by hybridizers.

writing the embryos remain alive in culture. Last summer I did have one carpel of *M. liliflora*  $\times$  *M. grandiflora* 'Sweet Summer' develop to maturity. I am hoping that this is a successful cross and not just the result of a contaminated hybridizing brush. Another avenue for developing a colored *M. grandiflora* is gene splicing. I understand red orchids have been developed by this method. I don't have the equipment or knowledge to do gene splicing but would welcome any help on this subject.

- *M. sieboldii*  $\times$  *M. grandiflora*. This cross is fairly easy to make. In the spring of 2000 I made this cross with about 5% of the seedlings proving to be hybrids. I have about twenty plants of the diploid form of *M. sieboldii* crossed with *M. grandiflora* pollen from various cultivators. The photograph of the seedlings was taken in late December in the greenhouse and it illustrates the variation in leaf size and also illustrates that some have remained evergreen while others have become completely deciduous. In the background is a plant of Augie's cross of tetraploid *M. sieboldii*  $\times$  'Sweet Summer.' The plant has large leaves, is a very vigorous grower, and remains to be tested for hardiness in this climate.



- **An everblooming magnolia.**

The best way to accomplish this may be to cross *M. liliflora* with pollen of *M. 'March to Frost.'*

- **A good red precocious magnolia.**

This magnolia should have the flower form of *M. 'Lennei,'* the color of *M. 'Vulcan,'* and the fastigate form of *M. 'Daybreak.'* Currently I am evaluating several hybrids of *M. 'Lennei' × M. 'Pink Royalty'* that could fulfill this request. Crosses of *M. acuminata × M. 'Vulcan'* have thus far been rather weak growers. Crosses of *M. 'Vulcan'* and *M. 'Pink Royalty'* could also fulfill this goal. Crossing *M. 'Vulcan'* with *M. 'Dark Diva'* or *M. sprengeri 'Burncoose'* could produce some good reds, but may be somewhat tender.

- **A hardy *M. campbellii* hybrid.**

The vision here is to have the exotic *M. campbellii* trees found in England and on the west coast of N. America hardy into zone 5. Currently I am crossing *M. acuminata* with pollen being sent to me from various *M. campbellii* trees. Also, I have managed to cross two good pinks, *M. 'Phil's Masterpiece'* and *M. 'Blushing Belle.'*

I would be extremely happy to hear your comments and ideas pertaining to these goals. You can e-mail me at [daled@netnet.net](mailto:daled@netnet.net).

As a result of the genetic pool of these two great mentors and my own hybridization program, thousands of new hybrids are being planted at four different sites. In addition to my plantings here in Green Bay (USDA zone 5a), plantings are also being made at Evergreen Nursery in Sturgeon Bay (USDA zone 5a), Klehm Nursery near Chicago (USDA zone 5b), and South Haven, Michigan (USDA zone 6b). I have also been sharing seed with other magnolia enthusiasts for their plantings and evaluation. 🌱



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This photograph of the seedlings was taken in late December in the greenhouse. It illustrates the variation in leaf size and also illustrates that some have remained evergreen while others have become completely deciduous.