Growing Magnolias in Fennoscandia

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There have been in our journal two recent articles that are interesting to compare with magnolia growing in Sweden. First, there was in the Spring 1991 issue an account of "Growing and hybridizing magnolias in southern Canada" by Michael J. Bula. This article is very interesting, but the reason why I mention it here is that Mr. Bula considers it surprising that so many magnolias can grow that far north (45°N) in a continental climate even if the lakes moderate the conditions.

The second article, "Magnolias in Poland," occurred in the Fall 1991 issue. This article specifies the latitudes for Poland's southern and northern borders as 49°N and 54°N. Now it is important, when talking about Scandinavia, to recognize the extremely northern position of the Scandinavian countries. Denmark's southern border is where the Polish ends at 54.5°N, Sweden's is at 55.5°N, Norway's at 58°N and Finland's at 60°N.

The climate in the southern part varies from typical Atlantic in the west to a transition between Atlantic and continental in the east. The winters are long in those areas, but in normal years quite mild. Exceptions are years when Siberian anticyclones make themselves noticeable. During those Siberian winters, exposed open ground can freeze to a depth of 1–1.5m, with temperatures as low as -8°C at a depth of 0.5m. Most magnolias are root tender, and I believe that a good solution for Fennoscandia is to grow magnolias grafted on understocks of either *M. acuminata* or *M. kobus*. I have noticed that *M.* 'Elizabeth' grows very well grafted on *M. acuminata* but stands still if propagated from cuttings.

I will mention two extremes of climate where magnolias grow well. One area is the west coast of Norway, where the precipitation is 2–3000mm a year. Winters are very mild but summers cool. It is the warm Gulfstream that is the reason for the climate. Finn Larsen, who lives on the shore of the Trondheim fiord at 63°N can grow *M. kobus* and *M. sieboldii* well. Further south lives Olaf Kalleberg, who grows a number

of magnolias but has specialized on *M. sieboldii* of various varieties and forms as well as other Oyamas. In this area *M. sieboldii* grows much better than in southern Scandinavia. Plants reach a height of 5–6m. On the Norwegian west coast it is too cool for the heat demanding members of the Yulan section, and they do not develop satisfactorily. In southern Norway, in the warm and dry area of the Norwegian capital Oslo, there are beautiful old trees of *M. acuminata*. Our Norwegian members are establishing good types of *M. hypoleuca*, selected in Sweden, as well as the progeny of *M.* 'Bloomfield.' The various hybrids of *M. acuminata* and *M. sieboldii* have found their way to Norway as well as the "girls" and the hybrids within the Buergeria section.

In the central part of southern Sweden is an area to the west of the Swedish capital, Stockholm, around a lake called Mälaren. The area has the warmest summer climate in Sweden. This, combined with the long summer days there and the unlimited supply of lake water, has enabled members to grow a surprisingly wide range of magnolias. What has surprised me is that *M. wilsonii* has survived and flowered there, *M. sinensis* has survived but suffered, *M. fraseri* has done well, *M. biondii* grows well but has not flowered.

In Finland, only two magnolias are so far on record, *M. kobus* and *M. sieboldii*, and these only in the extreme southwestern corner. Some die-hards will try more, but the results will probably be marginal.

In Denmark and southernmost Sweden is the best representation of older magnolias. Plants between 30 and 100 years old are not uncommon. In Figure 1 are some sizes for the largest magnolias I have observed falling within this age group. There has been an enormous increase in the number of species, hybrids and cultivars that are being tried. Their number amounts probably to about 200 today.

Mainly what is planted are the eight "girls," Pickard hybrids, Nakamura hybrids, a wide range of stellatas, loebneries and other Buergeria hybrids and cultivars plus more traditional soulangianas. There are a few Gresham hybrids around having a bad time. Thanks to the generosity of August Kehr, Lola Koerting and Phil Savage, a large number of their recent hybrids have found their way to Sweden.

I would now like to make a few comments on what I

Figure 1.

All heights in meters.

M. acuminata	22
M. a. var. *subcordata*	10
M. x 'Charles Coates'	7
M. cylindrica	5
M. denudata	7
M. fraseri	10
M. hypoleuca	21
M. h. x *M. tripetala*	10
M. x *kenensis*	15
M. kobus	18
M. liliiflora	4
M. x *loebneri*	7
M. x *proctoriana*	5
M. salicifolia	5
M. sinensis	4
M. x *soulangiana*	8
M. stellata	5
M. virginiana	5
M. x *wieseneri*	3

consider possibly more specific for the area that I am treating. *Magnolia* x *gotoburgensis*, which is member Nitzelius's cross between *M. wilsonii* and *M. hypoleuca* [see Issue 53 for photo and description], is hardy in southern Sweden and well suited for a small garden as it is slow growing. It will be propagated by Otto Eisenhut.

Stefan Mattson's chance hybrid between *M. sieboldii* and *M. hypoleuca* is a sound, vigorous plant, probably a much better garden plant than the traditional *M.* x *wieseneri*.

In Denmark, a couple of very old plants of *M. sinensis* are growing. One grows very close to *M. sieboldii*. The progenies of this sinensis plant are very straight upright growing plants, which are hardier than the mother and have leaves somewhat intermediary between *M. sinensis* and *M. sieboldii*. Whatever they are, the plants are very attractive.

A number of years ago, Nikko Botanic Garden undertook, upon a Swedish request, to make controlled crosses between wild material of *M. stellata* and *M. kobus*—both ways. The

Magnolia *'Nakamura Suishoren'*
in the garden of Otto Eisenhut, Switzerland.

plants resulting from those crosses have now started to flower in Sweden. All plants are intermediary. The purpose of the crosses was to see if there was a justification to include *M. stellata* in *M. kobus*, but the answer was negative. It was, however, also interesting to see how the female parent dominated the progeny [see Tobe, *et al,* this issue]. All plants with a stellata mother looked like large stellatas, whilst all with a kobus mother looked like dwarf kobus.

It is interesting that nearly all so called *M. salicifolia* planted in Scandinavia have been *M.* x *kewensis*. Nearly all show hybrid vigor, grow very fast and are very floriferous. As I indicated in the figures for magnolia heights, the tallest plant is 15m high. What has traditionally been supplied by German nurseries has also been kewensis. Those plants have much larger flowers than the average. I have picked seeds from Phil Savage's "salicifolia" and all the plants have grown very narrow, making them valuable for small gardens. I also consider *M.* 'Elsie Frye' a *M.* x *kewensis* form, but it is much more like the true *M. salicifolia*, and, to me, the most beautiful of this group. *M.* 'Wada's Memory' is a fine representative of this group, seen at a distance, but with too floppy flowers at a close view.

Most of the acuminata hybrids made in the USA have found their way to Sweden. A plant of the cross *M. acuminata* x *M. campbellii*, based on scion material from Phil Savage has so far proven to be fully hardy. It might be that the *M. acuminata* roots play a role, as the mother plant has suffered some winters in Michigan.

M. sprengeri 'Diva' is a surprising parent. Every time it is used as a parent, it gives a progeny hardier than could be expected. It further transfers its color quality best when it is a male parent. It is undoubtedly the hardiest of the west Chinese Yulan magnolias. I know of one *M. sprengeri* 'Diva' that grows planted against a house but not trained. It is almost 7m high and flowers regularly. Its hybrid 'Galaxy' is doing very well in southern Sweden. I have seen a tree 8m high, which flowers well and never is harmed by winter cold or spring frosts. Also *M.* 'Paul Cook' does well and flowers. *M. denudata* x *M. sprengeri* 'Diva' has shown some winter damage on some plants, but it is worth evaluating. *M. acuminata* x *M. sprengeri* 'Diva' is the most vigorous of all magnolias that I

have seen in Scandinavia. The plants in Sweden are seedlings from seed distributed by Phil Savage.

Magnolia dawsoniana is not hardy in Sweden. Ten years ago, I saw a tree originating from Hillier, at that time 7m high, that flowered. Next year it lost 50% of its branches from cold and has since then never shown a flower. *M.* 'Chyverton Red,' which is a hybrid between *M. dawsoniana* and *M. sprengeri* 'Diva' seems to be more promising, undoubtedly thanks to the 'Diva' blood.

Magnolia sargentiana has been recorded a few times in Scandinavia. The plants I have seen have either died from cold or been wrongly named. The same applies to *M. campbellii*.

Amongst the Rytidospermums it is interesting that if *M. officinalis* grows together with other Rytidospermums its progeny invariably is a hybrid. Of those I have grown, the crosses with *M. hypoleuca* have flowered at an early stage, whilst those with *M. tripetala* are slower in this respect. They are interesting for their narrow columnar habit. *Magnolia officinalis* itself flowers at a younger age than *M. hypoleuca*. Of other Rytidospermum hybrids, *M.* x *thompsoniana* performs better against expectations than *M.* 'Urbana.'

Magnolia 'Nimbus' grows too late in the fall and seems not to be hardy. I find it hard to believe in the parentage given—*M. hypoleuca* x *M. virginiana*. It is cytologically doubtful. The opposite way would be logical.

Magnolia x *flinckii*, which is Phil Savage's hybrid-grex between *M. virginiana* and *M. macrophylla*, is dear to me for the cultivar 'Birgitta Flinck,' named after my beloved wife. A second cultivar has been named 'Karl Flinck.' The latter only exists in the shape of two small propagations, as Phil Savage's mother tree was broken off at ground level. Both cultivars are under propagation at Otto Eisenhut.

Of the new species introductions from China, it is too early to say much. *Magnolia biondii* has flowered and against descriptions has a disappointingly small flower. Where it has been tested it has so far been hardy. *Magnolia zenii* has not been winter-killed but branch tips have died back slightly. It is too early to say anything about *M. amoena*, but I have doubts about its hardiness. Otto Eisenhut has made an interesting observation about *M. amoena*. Its bark and wood have a strong lemon-verbena fragrance, very similar to that of *M. salicifolia*.

Magnolia *'Charles Raffill'* (*Otto Eisenhut garden*)

Magnolia sprengeri *'Thomas Messel'* (*Piet Van Veen garden*)

Magnolia acuminata and its hybrids will always be a very important backbone in Scandinavian magnolia growing. An important range of *M. acuminata* and its variety, *subcordata*, (about 15 types) are at present in cultivation. For small gardens is August Kehr's *M. acuminata* var. *subcordata*, which flowers well 25cm high—very interesting. Most acuminata hybrids are grown in Sweden and the future will tell how their flowers will color in the Scandinavian climates.

In Sweden, thanks to member Nitzelius's efforts, all the best, for Scandinavian conditions, Japanese magnolia forms have been introduced. All the US magnolias are also represented by collections from their northern limits, which seem to coincide with the best types for Scandinavia.

So far, the impact from the Magnolia Society has been strongest in Sweden. The level of membership is high and the members raise a number of magnolias from seeds distributed by the seed counter. The generosity of US members in supplying seeds and scions have meant a lot. What August Kehr, Lola Koerting, Joe McDaniel and Phil Savage have done in this respect will greatly change the outlook of Scandinavian gardens. The Gosslers have undertaken to supply overseas with great inconvenience to themselves. My thanks to all of you who have supplied all the material that is behind this summary. ❧