## Growing magnolias in Norway

by OLAV KALLEBERG

For about fifteen years I have been growing magnolias at Sira, a small village between Kristiansand and Stavanger on the southwest coast of Norway. My garden is 1555 square meters, and it lies 12 miles from the sea. The altitude is 80 meters above sea level.

The extremes of temperature are 34°C and -20°C with the average temperature (year) being 6°C. Temperatures higher than 30° are not common. The average temperature in the warmest month is about 16-17°C (July). Snow cover is not dependable. We had no snow at all the last two winters. The average temperature in January was 5°C. A few years ago the temperature in January was -5.8°C. In 1941-42 it was -9.5°C. In February and March eastern winds and long-lasting frost can do much damage if there is no snow.

Normal rainfall is 1800 mm a year. About 75% of the rain is in autumn and winter. Spring is rather dry, especially May/June. The magnolia flowers are therefore seldom ruined by rain. Late frost is a threat after mild winters.

Magnolias are by no means common in Norway. Treseder considers southern Norway to be the northern limit for *M. acuminata*. A few large trees of this species do occur on the south coast. We also

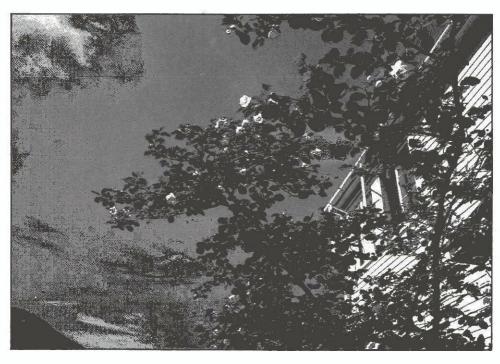
find some Magnolia kobus and M. k. var. borealis. The latter, called the Snow-magnolia, flowers after about 15-20 years from seed. It is quite hardy, but not showy. We find it in Tøyen Botanical Garden in Oslo, at Ås, and at several other places along the southern and western coasts. Magnolias can be planted to Trondheim, but only close to the sea. We must not forget that the Gulf Stream regulates the temperature in this area.

In Trondheim M. salicifolia is planted. In Bergen, which lies more to the south, M. hypoleuca is grown. In Bergen rhododendrons can grow to enormous dimensions. Davidia can grow there also. Not far from Bergen Araucaria araucana can grow to about 20 meters. Seedlings from this tree have been found at Stord, not far from Bergen. Cedrus atlantica and C. deodara can grow in this area. The climate is moist and the rainfall can reach 3000-4000 mm in western Norway.

The best magnolia in Norway is *Magnolia sieboldii*. It fruits freely, and it is easy to layer. The seed is fertile, and, after about 3-4 months of moist storage (2-4°C), it germinates readily if sown in 20°C and protected from the sun. You may read about this species in MAGNO-LIA, Spring 1989, especially about double forms. If any of the readers



Magnolia sieboldii. The plant in the photo below is located at the railway station in Sira, Norway. This magnolia is thirty years old.



know where to obtain semidouble or double *M. sieboldii* or *M. sinensis*—let me know. Several cultivars are named: 'Semi-Plena', 'Kwanso', 'Flora-plena', and an unnamed cultivar that has some double flowers with 36 tepals. The double forms usually have 22 tepals. The semidouble forms may have 12-16 (18) tepals. A hardy semidouble form is grown in Manchuria.

I have found the *M. sieboldii* with yellow stamens, and I am hoping to get a grafted plant. This rare plant does not come true from seed. Ferris Miller told me about seedlings from the "yellow" *M. sieboldii*. None had the special character. Only a few of the seedlings from double flowered cultivars will produce multitepalled flowers.

I have one single plant of M. sieboldii 'Genesis.' It has twice the normal chromosome number. The flowers are larger than common M. sieboldii and beautiful. The diploid cultivar will cross with other species with 38 chromosomes.

Magnolia x wieseneri is not common in Norway. In Sweden we can find crosses between M. sieboldii and a more hardy M. hypoleuca. There are several crosses between these species. The flowers differ in minor details. The scent is usually penetrating, but pleasant.

Magnolia stellata (especially the cultivar 'Royal Star') is found in smaller gardens. It is usually sited hear the house foundation. It is also possible to grow smaller plants of this magnolia in containers for several years. It transplants well. Older plants are often more hardy, and it is wise to grow plants indoors in a sheltered environment for some

years, especially in cold areas.

The loebneri cultivars 'Merrill' and 'Ballerina' were damaged after a very mild winter. They survived hard winters before. It seems to be a problem in Norway: plants of magnolia must have a warm summer to ripen the wood. I noticed that after an extremely warm August, the plants had no problems surviving a long and hard winter. After a rainy summer with cool weather the plants were damaged after a very mild winter. The plants started too early in the spring, and a snowfall was devastating. Therefore it is wise to plant against a wall. I find that the average temperature is much higher and therefore magnolias will flower more freely under such conditions.

I have planted several cultivars at Sira. I like *M*. 'Wada's Memory' very much. The flowers are far more showy than flowers of *M*. *kobus* var. *borealis*. The lemon fragrance is pleasant, the tepals white and beautiful. It is a vigorous grower and hardy too.

In my garden I also grow M. 'Charles Coates,' a cross between M. sieboldii and M. tripetala. It seems hardy. I do not have a large plant of M. tripetala, but I have seedlings of the cultivar 'Bloomfield.' The plants are hardy. From Anders Blomqvist in Sweden I learned that seedlings can flower after 4-5 years. M. sieboldii needs 5-7 years to flower from seed. It is recorded that M. ashei may flower after a few years.

Magnolia 'Yellow Bird' flowered in September of last year (a two year old grafted plant). It was destroyed after a mild winter by sunscald. I saw that the summer sun had done some damage before the frost. The loebneri cultivars were also damaged in this way. M. 'Evamaria' grows well in a container. I obtained a new 'Yellow Bird' and will have another try. Magnolia quinquepeta 'Nigra' was planted in 1981. It has frozen to the ground a couple of times, but now it is two meters high. It flowered against the wall the last two springs. Nearby M. 'Susan' does well. Some flowers are a bit twisted and some have more tepals than the others. It flowers freely, however.

Magnolia x soulangiana is probably the most common magnolia in Norway, but it is by no means hardy. I have some cultivars: 'Sundew', 'Ruby', and 'Burgundy.' I noticed that the latter had several flowerbuds as a two year old graft. It flowered when it was one year old. 'Lennei' is planted in Norway, also.

Magnolia cylindrica was not hardy. A grafted plant from Holland was killed after a normal winter. It is difficult to know if the understock was the reason. In our climate it is wise to use rooted cuttings or seedlings.

I have about 25 magnolias in my garden and in containers. I also grow about ten different wisterias (lilac, white, and yellow colors). Conifers are growing among magnolias and rhododendrons. My favorite plants next to magnolias and wisterias are Robinia and Sciadopitys. The latter prefers the same soil as the magnolias. From Germany I have obtained the cultivars 'Pendula', 'Aurea', and the dwarf 'Sternschnuppe.' A large Robinia x ambigua 'Decaisneana' gives the small plants protection from the sun. A twenty year old

Abies pinsapo 'Kelleriis' also gives some half-shade.

I use sheep manure as fertilizer. I spread the manure in autumn and cover with leaves as a protection before the frost. This mulch gives the plants what they need—protection and nutrition. I also use the same types of material for the seedlings.

I hope that new and hardy hybrids will give the gardeners in the far northern or southern hemisphere a chance. Magnolia acuminata must be used in crossings to get hardy plants. The most hardy provenance must be available. As an example, I will mention M. hypoleuca from northern Japan. In Scandinavia seedlings flower freely. Magnolia hypoleuca from a more southern area are by no means hardy here. I have noticed that M. sieboldii likewise can be more or less hardy. I hope that it will be easier to obtain hardy plants and that nurseries will ship plants true to name. It is quite a disappointment to wait for a long time for a certain plant to flower and have it prove a failure 28

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