MALUS

International
Ornamental Crabapple Society
Bulletin

Fall 1990 Vol. 4 No. 3

MALUS
is the official publication of the International Ornamental Crabapple Society.
Volume 4, Number 3. Published twice-annually.

MALUS

INTERNATIONAL ORNAMENTAL CRABAPPLE SOCIETY BULLETIN

CONTENTS

Letters to the Editor 1

Malus obscurus (Malus sylvestris), *Dr. Thomas Green.* 7

Crabs You Should Know, *Dr. Thomas Green* 12

The Career of Camillo Schneider, *Michael T. Stieber* 15

Arie Floris den Boer, *John den Boer* 19

How to Make Crabapple Jam, *Louise Littlepage* 31

MALUS
is published by
Plantsmen's Publications
Box 1, Flossmoor, IL 60422-0001
(708) 747-1900
Subscriptions and memberships are available through the publisher at $15.00 per year.

Letters to the Editor

Dear Editor,

In Malus 3(1), 1988 I noticed the discussion of the nomenclature of the Toringo Crab. In 1979 I published on this problem -- following Hara's evidence, and reached a different conclusion.

It boils down to: Sorbus toringo Sieb. dates from 1848 and was validly published. Do you have any data which contradict this conclusion? If not, I would suggest you publish a corrected synonymy in Malus.

Sincerely,

Dr. D.O. Wijnands
Wageningen Agricultural University
The Netherlands

Dr. Sabuco responds:

"Validly published" assumes the genus is correctly identified when first published. It is now possible by chemical analysis to distinguish the differences between Pyrus, Malus, Sorbus, etc. This, however, not withstanding the classic difference (among many other indicators) between Sorbus and Malus is that Sorbus has free styles and Malus has connate styles. M. sieboldii most definitely has connate styles. This supersedes an incorrect first naming. If my dog were called "pancakes" by my son, I would *not* eat the poor fellow just because he named the beast first!

If what you wish to say is that Sorbus toringo sieboldii, having a 1848 precedent, should be transferred to Malus and retain the specific epithet thus: Malus toringo sieboldii, then I can find no fault with this argument, except:

1) 75 years of common usage supersedes that precedent.

2) Rheder transferred the species to Malus (correctly) in 1915.

The name M. toringo was already being used incorrectly for another "species" at that time. It seems that the herbarium sheet used by DeVries to describe M.

toringo has two different species on the page: M. floribunda and an unidentified plant. It had no published description. Rheder very prudently rejected the name M. toringo for all future use to avoid confusion. He was correct in changing the specific epithet to sieboldii since this was the author of the first known description of M. toringo.

Therefore: Sorbus is incorrect and M. toringo unusable, so M. sieboldii Reg. (Rheder) must stand as the valid transfer.

To the Editor:

Like many other parts of the country, every small farmstead here in Cape Breton had a crabapple or two amongst their apple trees during the late 1800's and early 1900's, and I doubt if crabapples were ever planted for their aesthetic beauty alone, but primarily for food; the fruit being used for preserves and jelly. By 1930, growing crabapples became difficult as the white-tailed deer was introduced to the island. Besides, small farms were mostly abandoned and self-sufficiency fell by the wayside, too. An orchardist in my neighborhood had an old M. 'Queen's Choice' crab which died out a few years ago. He assured me that as a preserved dessert crabapple, M. 'Queen's Choice' had a uniquely fine flavor, unequaled by others he had tasted. So, this coming autumn I am going to check some of the old orchards where there may still possibly be one of these crabapples.

I joined the Crabapple Society because I was searching for a way to make my garden more showy and enjoyable during the late fall and early winter months. Crabapples, with their blossoming and then colorful fruit that can persist into the winter, were my answer. I have two-year-old seedlings of Malus toringoides, M. sieboldii, M. hupehensis, M. zumi calocarpa, M. sargentii, M. 'Makamik', and one-year-old seedlings of M. zumi calocarpa. Also, I discovered and propagated a yellow-fruited, white-flowered seedling growing wild along the highway, the fruit of which persisted until spring. Our climate is very favorable for the culture of crabapples and, so far, there is very little tip dieback due to frost.

Locally, a few Rosyblooms and Dolgos are available on the

market occasionally. Cornhill Nursery in Anagance, New Brunswick, has the largest variety of crabapples (that I am aware of), and they try to accommodate anyone in their region 4 and our region 5. No arboreta or botanic gardens exist in Nova Scotia; however, an Annapolis Royal Historic Garden with a heritage apple orchard is being established.

Sincerely,

Dorothy K. Pottie
West Bay Road
Route 1, Northeast
Cape Breton, Nova Scotia

Dear Father Fiala,

. . . 'Wijcik McIntosh' was discovered in 1964 in a commercial apple orchard near Kelowna, British Columbia. A single-shoot mutation emerged below the point at which a branch had been pruned near the top of a 50-year-old 'Summerland McIntosh' tree.

The 'Wijcik McIntosh' is not an understock as you suggested, but it is a fruiting cultivar. Also, it is not an ornamental crabapple. It is a compact mutation of 'McIntosh' with columnar growth habit. The Experiment Station here at Geneva has been growing [the] trees and observing [their] growth habit and fruit type since 1979. The fruits are the same as 'McIntosh', however, the trees are very dwarfed, even when grafted on vigorous seedling rootstocks. They have few side branches and can be grown as "poles", 1 foot apart in a row -- just like a row of corn.

Nursery trees of 'Wijcik McIntosh' have been sold by Stark Bros. Nursery, Louisiana, Missouri. Stark renamed it 'Starkspur Compact McIntosh'.

When 'Wijcik McIntosh' is hybridized with other apple cultivars, the columnar growth habit is inherited by some of the offspring. The East Malling Research Station in England used 'Wijcik McIntosh' to breed four new ornamental crabapple cultivars with the columnar cultivar by crossing 'Wijcik McIntosh' with ad-

vanced selections of disease resistant apples.

Sincerely yours,

Roger D. Way
Professor of Pomology Emeritus
New York State Agricultural
Experiment Station
Geneva Campus, Cornell University

Dear Tom,

We were surprised to see Jan's articles, and happy that there were no horrible inaccuracies; we still pretty much agree with what was said a couple of years ago. I enjoyed your article on M. zumi, the article on Madonna, and the rest of Malus.

I think that you'll enjoy seeing our enclosed list, not because you'll necessarily agree with it, but because, as a plantsman, I'm sure you're curious about other's opinions of various cultivars. I've often referred to your Vol. 1 No. 2 article, "Evaluating Crabapples for Aesthetic Qualities," and I've also enjoyed the opinions of Dr. Hasselkus, Dr. John Sabuco, Polly Hill, Betty Powell, and others. I'm anxious to see how you rate the crabs below against others in the same class. I haven't even seen any of them yet.

1-'Adirondack'
2-baccata 'Walters'
3-'Canary'
4-'Christmas Holly'
5-'Coralburst'
6-'Doubloons'
7-'Edna Mullins'
8-'Louisa'
9-'Madonna'
10-'Molten Lava'
11-'Naragansett'
12-'Pink Princess'
13-'Prairie Maid'
14-'Red Bird'
15-'Sinai Fire'
16-zumi 'Glenn Mills'
17-'Zumirang'

If possible, we hope to be able to avoid patented cultivars in the future. The paperwork involved is just one more thing to worry about.

Regarding our cultivar, 'Janis': it was found among 500 Selkirk seedlings purchased from Groen's in Canada for understock. Our customers like the foliage color and growth habit, but the fruit is not as good as 'Selkirk' in brilliance, and it turns brown in early fall, persisting as brown mummies. If the fruit were better, I would push it for distribution.

We are growing a lot of open-pollinated seedlings for evaluation. I wish M. tschonoskii would flower and fruit for us because it should produce some very interesting offspring if it doesn't come true from seed. The only observation I would make so far is that 'Candied Apple' seedlings seem very vigorous, 'Katherine' and 'Indian Magic' seem to lack vigor, and 'Sugar Tyme', 'Ralph Shay', and a few others seem intermediate.

I hope that all is going well for you. Keep up the good work.

Sincerely,

Tom Palven
Hollyhedge Nursery
95 Casino Drive
Farmingdale, New Jersey 07727

[P.S. From what I've seen of 'Snow Magic', it has excellent form and foliage, but the fruit raisins early and is taken by birds.]

Dear Tom,

Thank you for your letter. We appreciate and enjoy your continued interest in and support of Malus.

Listed below is the rating of the crabs you requested:

1. Good credentials, National Arboretum, wanted for NCIP. Not rated yet.
2. I do not know where one of these can be observed. Not rated yet.
3. I do not know where Canary can be observed. Not rated yet.
4. In NCEP, nice tree, recommended.
5. Scabby, no fruit show, rates 3.
6. Promising double, in NCIP.
7. Same as #2.
8. In NCIP, looks great.
9. Very good double, fire blight may be a problem.
10. In NCEP, recommended.
11. Good credentials, National Arboretum, wanted for NCIP,

not rated yet.
12. Will be added to NCIP in '91, not rated yet.
13. Will be added to NCIP in '91, very clean foliage, pink flower.
14. Not rated yet.
15. Added to NCIP in '89.
16. Not rated yet.
17. Not rated yet.

Sincerely,

Dr. Tom Green

"MALUS OBSCURUS"

MALUS sylvestris

French Crabapple
European Wild Crabapple

By
Dr. Thomas L. Green

Linnaeus, in his Species Plantarum in 1753[4] listed *Pyrus malus sylvestris* as a botanical variety of *Pyrus malus*, the common apple. However, no taxonomic description is given. Philip Miller[5] had included *Malus sylvestris* among a list of fifteen apples and crabapples thirteen years before Linnaeus lumped the apples with the pears (Pyrus). Miller's original reference to this crabapple makes identification very difficult.

> "Malus sylvestris, acido fructu albo. Tourn. The Crab-tree."

The Latin translates to "sour, white fruit". Miller adds this information about the tree he calls the Crab.

> "The Crab. . . has been generally esteemed as the best stock for grafting apples upon, being very hardy, and of long duration, but of late years there have been few persons who have been curious enough to raise these stocks, having commonly sown the kernels (seeds) of all sorts without distinction, as these are much easier to procure than the other (sylvestris). . ."

If you like colonial era English with run-on sentences and s's that look like f's, there is more for you in this reference.

In 1768 Miller[6] provided a little more taxonomic information.

> "Malus (sylvestris) foliis ovatis serratis, caule arboreo. Apple with oval sawed leaves, and a tree-like stalk. Malus sylvestris, fructu valde acerbo. Tourn. Inst. R. H. 635. Wild Apple with a very sour fruit, commonly called Crab."

Some of the popular, contemporary taxonomic publications provide better descriptions, but the best I have found for *Malus sylvestris* are in a couple of less commonly used publications, Flora of Turkey[1] and Flora of the U.S.S.R.[2].

Flora of Turkey: "*M. sylvestris* Miller, Gard. Dict. ed. 8: no. 1 (1768)."

> "Tree up to 8-12 m., unarmed or spinescent when young; twigs slightly tomentose. Leaves elliptic to obovate or suborbicular, 3-8 (-10) X 2-4 (-5) cm, crenate or serrate, pilose when young, especially so above, on maturity glabrous or slightly tomentose above, tomentose or occasionally glabrescent beneath; petioles tomentose, .25-.50 X blade. Flowers 3-4 cm diam., in 4-6 flowered corymbs; calyx densely tomentose-pilose. Pome subglobose, 2-3 cm diam. (in cultivars up to 15 cm diam.), green, greenish-yellow or reddish; pedicels 1-2.5 cm or more. Fl. 4-5. Throughout Turkey, except in central Anatolia."

Flora of the U.S.S.R.: "*M. silvestris* [sic] Mill. Gard. Dict. ed. 8 (1768) No. 1. - *M. acerba* Merat, Fl. Paris (1812) 187. - *M. communis var. sylvestris* Beck, Fl. Nied. -Oesterr. (1890) 750. *Pyrus malus silvestris* L., Sp. pl. (1753) 479. - *P. acerba* DC., Prodr. II (1825) 635. - *P. malus var. austera* Wallr., Schedae crit. (1822) 215. -*P. malus var. glabra* W. Koch, Syn. Fl. Germ. (1837) 235; Ldb., Fl. Ross II (1844) 95. - Ic: Peterm., Deutschl. Fl. (1849) tab. 26, f. 200; Rchb., Ic., Fl. Germ. XXV (1914) 111; Hegi, Illustr. Fl. Mittel-Eur. IV, 2, f. 1066, 1067, 1068. - Exc.: Woloszczak, Fl. polon. exsicc. No. 947."

> "Shrub or tree more than 10 m high with divaricate twigs and dark brown, glabrous or initially loosely hairy, more or less spiny branches; entire plant subglabrous or slightly hairy (especially on scale margins); leaves broadly ovate, broadly elliptic, or suborbicular, mostly rounded or obtuse or slightly notched at base, occasionally broadly cuneate, narrowing abruptly at the apex to short or shortish, slightly oblique sharp point, serrate-dentate or crenate-serrate, often somewhat biserrate-dentate, the teeth terminating in a small point (gland), the blade initially covered along the veins on both sides with a

> short crisp, later completely disappearing, tomentum conspicuously paler and somewhat lustrous below; petioles 1-3.5 cm long, loosely tomentose, usually glabrous later; flowers in few-flowered inflorescences at tips of reduced shoots, to 4 cm in dia.; pedicels 1-2.5 cm long, glabrous or slightly hairy; hypanthium glabrous or pubescent at base; sepals 5-6 mm. long, triangular, more or less long-acuminate, glabrous outside, more or less tomentose-villous inside; petals 1.3-2 cm long, rounded-ovate or obovate, abruptly short-clawed, glabrous or slightly pubescent outside, white or pink, darker outside; stamens ca. 10 mm long; styles initially shorter, later slightly longer than stamens, glabrous, loosely pubescent only at base, connate only at the very base; stigma capitate, broader than style; fruits 2-2.5 cm in diameter, globose or globose-ovoid, yellow-green, often slightly reddening on the side facing the sun.
>
> Deciduous (especially broadleaf) and mixed (with pine) forests and their derivatives. - European part: Lad.-Ilm., U. Dnp., L. Dnp., U.V., V.-Kama; reported also for the Caucasus (?). Gen. distr.: Central Europe, Scandinavia, Atlantic Europe. Described from England. Type unknown.
>
> Economic importance: Owing to its frost resistance, this species is of great importance for the breeding selection of cultivated forms valuable for northern regions; for the same reason seedlings of *M. silvestris* are successfully used in these regions as stock for cultivated forms."

There are some *M. sylvestris* subspecies, varieties and cultivars. Krussmann[3] places (incorrectly) *M. domestica* as a variety of *M. sylvestris*. The taxonomy of *M. domestica*, the common apple, will be covered in a future issue of MALUS. Krussmann also describes cultivar 'Plena':

> "Medium size tree, often only a tall, spreading shrub; leaves ovate to oval-elliptic, acute, 4-7 cm long, finely serrate, rather glabrous; flowers double, soft pink in bud, opening pure white, to 4 cm wide, with 13-15 petals; fruit 4 cm dia., yellow with red to totally red, sweet, stalk short, not thickened. Almost always found listed as

M. spectabilis alba plena; but, according to Arie den Boer, this is not an Asiatic species, but definitely a double form of the native European wild apple."

In the Flora of Turkey[1], *orientalis* and *mitis* are listed as subspecies of *M. sylvestris*. Subspecies orientalis has two varieties listed, *orientalis* and *microphylla*. Flora of the U.S.S.R.[2] treats *M. orientalis* as a species.

It is obvious that these Eurasian crabapples need more thorough taxonomic study. Many arboreta and botanic gardens have *M. sylvestris* and 'Plena'. They should be carefully examined to determine if they are true to their taxonomic descriptions. I would be most interested to know if the European Wild Crabapple still grows in the wild.

Literature Cited:

1. Davis, P.H. 1972. Flora of Turkey. Vol. IV. Edinburgh p. 158.
2. Komarov, V. L. 1939. Flora of the U.S.S.R. Vol. IX. Izdatel'stvo Akademii Nauk SSSR, Moskva-Leningrad. p. 276-7.
3. Krussmann, G. 1985. Manual of Cultivated Broad-leaved Trees and Shrubs. Vol. II. Timber Press, Portland, OR.
4. Linnaeus, C. 1753. Species Plantarum. Vol. I. Ed. 11. p. 478.
5. Miller, P. 1740. The Gardeners Dictionary. 2nd Ed.
6. Miller, P. 1768. The Gardeners Dictionary. 8th Ed.

Additional Notes:

How often do you think of the old adage: "an apple a day keeps the doctor away?" This phrase is pretty commonplace; but several other traditions or beliefs surrounding the apple are not so well known.

Did you know:

In the U.S., girls used to name fallen crabapples after prospective husbands, cut the fruit open, and count the seeds. The fruit with the most seeds would indicate the boy who would make the best husband.

More recently, girls would tie a ribbon on a branch in flower. When the fruit on that branch matured, the girl tasted it: if the fruit was sweet, then the sweetheart was hers; if the fruit was sour, the relationship was doomed.

A paring thrown over the shoulder on Halloween is believed to form the initial of a future spouse.

In a village west of England, young girls used to collect crabapples and mark them with the initials of their would-be boyfriends. On St. Michaelmas Day (at the end of September), those crabapples that survived the best represented the boys who would make the best husbands.

By Kris Marshall, with excerpts from the September, 1917 issue of National Geographic.

CRABS YOU SHOULD KNOW

'ORMISTON ROY'

By
Thomas L. Green, Ph.D.

This crabapple was introduced in 1954 and named by Arie den Boer of Des Moines, Iowa. He provides the following information about this tree in his book *Ornamental Crabapples*.

> "Mr. W. Ormiston Roy, landscape architect, horticulturist and traveler, of Montreal, Canada, saw the tree in fruit one winter in Des Moines, Iowa. The branches were loaded with fruits, bushels and bushels of them. A flock of [cedar] Waxwings and some other birds were enjoying themselves, eating the fruits, and this sight was so pleasing to Mr. Roy that he urged that the tree be named and introduced. Thus, although this was not his suggestion, the tree was promptly named 'Ormiston Roy' Crab."

This occurred prior to 1933. The parentage and origin of the tree are unknown.

'Ormiston Roy' is an outstanding crabapple. When young, the trees tend to be somewhat upright, but with age the branches spread out, and the tree becomes more rounded. It is known to bear flowers and fruit annually. However, I have seen trees become alternate bearing following a severe drought. The flowers change from a rose-red tight bud, to pale rose-pink balloon stage, open to pure white, approximately 4 cm. The fruits transform from green to yellow to orange-yellow with a reddish blush and are approximately 1.2 cm in diameter. After frost the fruits become reddish and remain colorful all winter. It is one of the few crabapples with "post-frost color". At the Morton Arboretum, three 'Ormiston Roy' trees were the most conspicuous in the crabapple collection in January and February. Unfortunately, all three trees were lost during the construction of our new "Crabapple Lake". The hard frosts soften the fruit, making it palatable for spring migrating birds. Les Nichols reported this tree only slightly susceptible to fire blight. In my observations, I have not seen any disease problems.

Photographs provided by: The Morton Arboretum, Lisle, Illinois

If this tree has a downside, it has to be its name. A good plant should sell regardless of its name. There are a number of inferior plants that have "good" names and sell well. If this tree had a better name, it would sell well. Its name is such a problem that some nurseries sell it by the name of Roy Ormiston. It just needs more exposure.

The Career of Camillo Schneider

By
Michael T. Stieber

One of those names that emerges regularly in the literature of cultivated crabapples, as well as of other woody plants, is that of Camillo Karl Schneider (1876-1951). His *Illustriertes Handbuch der Laubholzkunde* (tr. Illustrated Handbook of Shade Trees and Shrubs) became a standard reference in the field with his contemporary Alfred Rehder's *Manual of Cultivated Trees and Shrubs*, and was not superseded until the advent of Gerd Krussmann's works (1972, 1976-78) on the same subject. His early training in botany and landscape gardening introduced him to a variety of cultivated trees and shrubs. Schneider's work on the *Handbuch* while at the Vienna Natural History Museum advanced his expertise.

While at Vienna, Schneider had the good fortune to meet Count Ernst Silva Tarouca, a man whose friendship enriched his life and whose patronage and collaboration produced a fine illustrated encyclopedia of horticulture in the German language. Although the *Illustriertes Handbuch* occupied Schneider for more than five years, he agreed with Silva Tarouca to found the Austrian Dendrological Society (modeled after its sister society in Braunschweig, Germany) and to produce this encyclopedia known as *Die Kulturhandbucher fur Gartenfreunde* (literally, The Culture Handbook for Garden Friends). With the backing of Society members, Schneider collected widely in the Balkans and the Caucasus from 1907 to 1908. After returning to Vienna with his treasures, he finished the *Handbuch* and began systematically assembling the first three volumes of *Die Kulturhandbucher*.

Judging from the layout and illustrations in the editions of each of these works available to me here, I surmise that these were meant to be *the* horticultural references for gardeners. *Unsere Freiland-Stauden* (tr. Our Perennial Plants), the first volume, covered perennial herbs for various kinds of garden situations; *Unsere Freiland-Laubgeholze* (tr. Our Woody Plants), the second, treated broad-leaved shrubs and trees; *Unsere Freiland-Nadelholzer* (tr. Our Needle-bearing Trees), the third, presented the gymnosperms. While a fourth volume that the Society planned, *Garten und Park* (tr. Garden and Park), never reached the

presses, Schneider, Silva Tarouca, and their collaborators did complete three of the best illustrated horticultural references for middle Europe in the early twentieth century. Since the task of compiling such works required familiarity with a broad range of cultivated plants, the editors recruited many experts to contribute, but Schneider's touch is evident throughout. His own essays reflect his interest in landscape architecture.

Besides studying individual species from the different biomes represented in *Die Kulturhandbucher*, Schneider made certain to illustrate the plants in their growing situation with photographs that he solicited from several gardens and commercial establishments in Europe and the Arnold Arboretum in the United States. The excellent illustrations, coupled with the accurate descriptions, account for the continuing value of these horticultural handbooks.

Camillo Karl Schneider was born on April 7, 1876 into a landowner's family in Oschtz (Groppendorf bei Zeitz) in the Saxon part of Germany. A series of positions in gardens in Greifswald and Darmstadt nurtured his interest in garden design. After two years writing for *Gartenwelt* (tr. Garden World), Schneider decided to pursue his own interests away from home and moved to Vienna.

Under the auspices of the Academy of Sciences of Vienna and the Dendrological Society, Schneider, accompanied by Heinrich Handel-Mazzetti (a plant explorer and geographer), set out for southwestern China in December 1913. The two started from Yunnan-fu early in March 1914 and traveled northwards across the Yangtze River to a tributary of the Yalung called Aming-ho. They advanced along the east bank of this river, finally reaching Ning-yuan, from which they explored the surrounding country for several weeks. This area of Szechwan occasionally exceeds 12,000 feet altitude and has "rolling saddle-backed" topography.

At the Li-chiang range they met George Forrest (a plant explorer and geographer), in whom Schneider discovered a kindred spirit. The three collected together until news of the outbreak of World War I reached them. Forrest evidently felt it would be safer for him to cross over Tibet into India; Handel-Mazzetti, being a daring chap, continued exploring the area until 1918, when he arrived in Hunan and then decided to return to Vienna. Handel-

Mazzetti's studies rank as important for the phytogeography of China even to this day.

Schneider, for whatever reason, chose to wind his way back to Yunnan-fu, arrived at Shanghai, and then turned up at the Arnold Arboretum. However, accounts vary on the details of this transoceanic migration. If Schneider booked passage out of Shanghai for the USA, he would have had to have had the permission of the British Port Authority. His Austrian passport would have landed him in a prisoner-of-war camp, at least temporarily. Someone must have spoken for him from the United States in order for the British authorities to have allowed him safe passage across the Pacific.

In 1914, David Fairchild asked Charles Sprague Sargent, who then was director of the Arnold Arboretum, to employ Schneider as an explorer for the USDA in China until the end of the war. "This plan did not work out, but, to my surprise," continued Fairchild, "Schneider later appeared in Washington, where he again barely escaped internment as we ourselves were about to declare war on Austria. His contributions to dendrology since the war have amply repaid the efforts that we made to save him from a concentration camp". I wonder whether Fairchild included his own efforts with those of Sargent, but the threats of arrest if not actual internment by the authorities in Shanghai, glossed over by the other accounts noted above, seem probable. Fairchild also mentions listening sympathetically to Schneider's poignant tale of parting from George Forrest in China. Sutton corroborates Fairchild's account of Schneider's escape from China and positively asserts that "Schneider headed for Shanghai where, as Sargent feared, he was promptly arrested," and that he barely escaped incarceration in the United States but for Sargent "putting him to work identifying Chinese collections in the herbarium at the Arboretum until after the war."

The person with whom Schneider found companionship and a congenial working situation at the Arnold Arboretum was, of course, Alfred Rehder. As one person observed: "Schneider trat naturlich Rehder freundschaftlich nahe," (tr. Schneider acted friendly toward Rehder quite naturally) because they both were dendrologists of equal merit. While working on plants collected by E. H. "Chinese" Wilson (the great plant explorer and former head of the Arnold Arboretum), Schneider studied that scorpion's

nest of taxonomy, the willows. However, a series of papers attest to Schneider's assiduous research on this group. While at the Arnold he also contributed to the *Plantae Wilsonianae* and, if that were not enough, began work on a monograph of the genus *Berberis*, another genus fraught with snares for the unwary. But by this time Schneider was a veteran. His consistent, methodical information-gathering, synthesis, and orderly presentation of the results earned him success in the many tasks he undertook.

When, after returning to Austria in October 1919, Schneider discovered its economic situation would not support him or the Dendrological Society, he moved back to Germany, working in Berlin as a garden architect and horticultural journal writer, also editing for a time the classy journal *Gartenschoenheit* (tr. The Beautiful Garden). Visits to the gardens at Kew and Wisley, as well as to others in Great Britain, provided him with some material to begin the work in *Berberis*, this at the behest of the Royal Horticultural Society. During his Berlin tenure Schneider did manage to join Silva Tarouca occasionally and revise their "Unsere Freiland" series, a happy reunion soon marred by the death of his friend in August 1936. World War II shattered his painstaking efforts on Berberis -- the manuscript was bombed to bits with a large part of the Berlin-Dahlem Herbarium in 1943. His finances waned as well. He and his wife had been separated during the Great War and, after their reunion in 1919, worked together to find a life "far from the business world and in a pleasant state of enjoyment", but they never fulfilled this desire. He was reported to be working on a new edition of his Unsere Freiland-Stauden when he died in Berlin, January 5, 1951. His deep knowledge and love of landscape plants and plantings fill his writing, which will continue to enlighten those who work with and enjoy woody plants.

(The bibliography for this article is two typewritten pages. Due to space restrictions, it is available upon request from the publisher. *Editor*)

Arie Floris den Boer

Submitted by
John den Boer

Except for comments added by his son, John H. den Boer, the following is the story of the life of A. F. den Boer as told by him. The added comments begin with the word "Note". This story was written in response to a request for a biography needed for submittal with his nomination for the Johnny Appleseed Award:

Born March 19, 1897, Gouda, Holland.

I entered a special school for boys at the age of six, which I finished in seven years. This included four years of French, one year of physics, two years of ancient history, mathematics, and a few other odds and ends. School methods in Holland were rather strict in those days and were not especially attractive to a restless young boy, making it easy to decide not to go to high school.

My parents were of limited means at that time, which made it an easy matter to convince them that my best opportunity would be in the business world. I got a job at the age of thirteen as office boy (nowadays sometimes called junior clerk) in the office of a soap factory, and was never able to make anyone believe that this job was cut out for me. In fact, the boss canned me because I made too much noise and talked too much to the men in the factory.

Some of those men raised rabbits, others had pigeons, and still others raised flowers. I did all of those myself, plus a lot of other things. I had an aquarium and a terrarium; there was a *voliere* [Fr. birdcage or aviary] with many birds, white mice, a crow, a goat, and a dog. I made a herbarium of practically every flower found around my home town before I left school.

There was a "commerce school" which I attended in the evening, where languages, bookkeeping, etc. were taught, but I played hooky too often when the weather was nice and preferred to hear the wood thrush sing in the evening. The setting sun meant more to me than all the schools in the world.

Outdoor life attracted me more than anything. I knew all the

birds in our gardens fairly well, and it makes me smile when I think of the time when someone questioned my ability to identify the European Starling when I first discovered it in Polk County, Iowa. This bird is one of the two most common birds in Holland.

My second job was with someone who had also been kicked out of the same office. (Incidentally, the fellow who did all that kicking was kicked out himself a few years later.) This second job did not hold much promise for a young fellow who wanted to go places. Hanging on a telephone and typing addresses was not very appealing. Meanwhile, my father's financial status had undergone some improvement, and I made use of this change to induce him to let me become an apprentice in a nursery. (Note: His father was a government employee responsible for auctioning articles presented as gifts to the Queen of Netherlands, who had determined that those articles were no longer needed. The monies from these auctions went to the support of the elderly, widows, and orphans. His father occasionally bid on some of these articles, and those he purchased have since been passed down to grandchildren and great-grandchildren.) I had heard of some people traveling all over Europe and the U.S.A. selling nursery stock, and all I had to do, I thought, was to learn something about trees and shrubs. Anyway, the idea seemed like a good one.

My father was wise enough to see that I could not be tied down, and he helped me get a place with a nursery in Boskoop -- which is still one of the greatest nursery centers in the world. There were nearly one thousand nurseries then, and practically all of them wholesale nurseries, growing plants for the rest of the world.

That particular nurseryman, Jan Groeneveld, was recommended as one of the best plantsmen in Boskoop, and one of the most skilled propagators of evergreens, rhododendrons, azaleas, roses, and all sorts of other plants -- including crabapples.

And he was all of that. He was also a great one to start an argument about anything under the sun. And there I had to learn to argue back -- and still do on occasion. It is like taking something apart to see what makes it tick, and then putting it together again. Only it did not always turn out that way.

Usually an apprentice receives nothing for his labors, but I must have been extraordinary. Jan Groeneveld paid me the equivalent of twenty cents American money per week. I worked nine hours per day, eight on Saturday, and rode about seven miles on bicycle in the morning and again in the evening.

Boskoop is a peculiar little town in the country but is, at the same time, very cosmopolitan. There is hardly one family there which has not had at least one member work in one or more friendly countries. And visitors from all those countries can always be found in Boskoop. I heard stories about foreign nurseries, and it did not take me long to make up my mind to go and look for myself. The phrase "I want to know" has always tickled me. Anyway, I got hold of the name and address of a French nursery and, with some help, wrote a letter asking for a job - and got it. Twenty-four whole francs per week. (Don't try to figure that out now.)

I was not quite seventeen years old then, and my mother thought, of course, that I was much too young to leave home and the country, as well. So I compromised and suggested that I should wait until I turned seventeen. That was the following week, and a week later I was working in the great nursery of Croux & Fils at Chatenay, Seine.

That seemed like an international institution. Besides another Dutchman, there were several young men from Hungary, Austria, Germany, Belgium, Italy, and Russia. I got quite a kick out of my new surroundings. All beginnings are somewhat difficult, and my attempts to speak French must have been amusing. With or without some of the other boys, I went to Paris on most of the Sundays to visit the Jardin des Plantes or some interesting place like the zoo in the Bois de Boulogne.

World War I put an end to this happy time and forced me to return to Holland. Back to Jan Groeneveld in Boskoop I went -- but I did not feel this was getting me anywhere and started brooding about going to England. The Germans spoiled that; by this time they were throwing bombs all over England from Zeppelins, and again my mother had fears that were understandable.

It was then that Jan Groeneveld suggested that I go to the U.S.A., reasoning that it would be just as easy to learn to speak English there as in England. He had begun to figure on making me his American salesman. With his assistance, my parents were persuaded to let me go to that great country across the ocean. He also loaned me the necessary money to pay my passage and to find my way. A few hundred dollars was quite a lot of money in those days, and second class passage cost about $68, or thereabouts.

The following week saw me in the boat, waving good-bye to my father and mother, and Jan Groeneveld and his wife who saw me off. And was I happy? Here I was going to an entirely new and different world with a couple of dollars in my pocket and not a single worry. In case no one remembers, the autumn of 1914 was not a very good one in the U.S., and I found out quickly that jobs were very scarce. I remember the men waiting around the newspaper buildings in New York City, all looking for the next issue of the paper and perhaps a chance of finding a job.

My money did not last long, but there are always good people who are willing to share what they have; and I was fortunate to find lodgings with some people in Hoboken who were soon as hard up as I was myself. For a week all we had to eat was oatmeal, and we called ourselves the oatmeal gang.

Someone found a job for me as dishwasher in the hospital for the mentally ill in Morris Plains, New Jersey, where I did not stay very long. I became very ill there and was discharged. Back to the oatmeal gang. I hocked my overcoat the day before Christmas to help pay for our Christmas party. That must have been a turning point, for soon after New Year I met a man who worked for Bobbink & Atkins and got me a job there.

Pretty soon I was put to work in the order department under that fine old gentleman, Cornelius Vermeulen, who was then the superintendent. He was not only a great friend -- almost a father to me, but he was also a first class plantsman and teacher. And he was a philosopher. There seem to be many of those peculiar fellows in the nursery business.

There were many interesting fellows working for Bobbink & Atkins at that time: Piet van Melle, Arthur Jennings, Fritz

Hendrick, Jack Smith, Antoine Boot, and many others, most of whom have become well known in one phase or another of horticulture.

But there were really too many Dutchmen, and that did not do my study of the English language any good. So, the following spring off I went to Connecticut, then to Massachusetts, and from there to Stroudsburg, Pennsylvania, where I laid out the first rhododendron and azalea plantings of W.K. LaBar & Company. But this was not enough, and in midwinter I started trekking again, looking for... I don't quite know what. Anyone who has ever felt "wanderlust" knows how strong that urge can be, and it brought me back to Bobbink & Atkins a second time.

The war in Europe was getting worse, and in June my buddy Jack Smits (who had been working for Dreer) and I were on a Dutch freighter shoveling coal all the way to Holland. There were submarines and mines to think and worry about. We arrived there without needing the life belts in which we were supposed to sleep, or the lifeboats that were hanging outside, ready to be lowered.

Somehow or another things got mixed up and instead of landing in the army, I got a job with the Department of Agriculture which was organizing a new division specifically for dealing with the available supply of food and raw materials for industry. When the worst of the crisis was over, I went to work as assistant to the manager of a lignite mine and then gave that up for a job with an import-export firm in Rotterdam. Then came my little stretch in the army. That out of the way, I got the job of foreign language correspondent with the largest automobile importer in Holland. (Note: In Holland at that time it was possible to be discharged from the army at any time an individual wished -- provided he could find someone else to take his place, which could generally be done for a fee. This is what he did.) That was not so bad: good pay, good working conditions, and an excellent employer. But how could I ever stick it out on a chair in an office?

As happens quite frequently with young men, I had meanwhile fallen in love and "we" began to think about our future. (Note: The girl he met lived next door. The girl's father was well-to-do and felt it totally unnecessary for his four daughters to get

married, as he could take care of them quite well, thank you! As a result, he prohibited his daughters from engaging in any social contact with the opposite sex. The townspeople knew of this, so whenever one was out and the people knew where the other was, the word was passed so that they could find each other.) It had become clear to me that my knowledge of English could stand a good deal of overhauling, and I began studying under a private tutor. For good measure, I took up accounting and Spanish, and brushed up on French, feeling practically certain that I would never stay in Holland, but not knowing where I would ultimately land.

The end of that story is that "we" finally made up our minds that I would go back to the U.S. and "she" would follow as soon as I had my bearings. We thought it would be a year, but it was more than two years later when she finally arrived after an almost endless struggle with State Department officials, immigration law, and what have you. (Note: The problem was caused by a law in The Netherlands that prohibits unmarried women from emigrating. To overcome this problem, they were married by proxy, his father standing up for him. This was legal.)

When I landed in Hoboken the second time, there weren't many dollars left in my pocket. But now I knew the way and was soon working for Frank Pierson in Tarrytown, New York.

(Note: During this time he took room and board in a home in Ossining, New York. It was the home of a widow and four daughters, some younger and some older that he. The older daughters competed with each other to make his breakfast and would get up earlier and earlier to be the one to make the meal. One morning his fried eggs were so tough that he could not eat them. Rather than disappoint the girl by leaving the eggs untouched, he put them into his pocket before he left. Since it was near Christmas, he cut the eggs into the form of paper dolls and gave them to the "cook" for a Christmas present. To her dying days, she never believed she had cooked those eggs.)

The following spring saw me in Des Moines, Iowa working for the Capital Nursery Company. (Note: His parents were extremely concerned about his safety when he was planning to go to Des Moines. There were Indians out west, you know, and they were known to scalp people. After about a year he had

saved up enough money to pay passage for his bride. She was met by the groom at Ellis Island. The officials there did not recognize the marriage and required them to be married under U.S. laws. This was promptly carried out. During the first year in Des Moines, he built a three-room house way out in the country. He recognized that this "beautiful house" was something that his bride was going to have to get used to. To make the first impression as good as he could, he took his bride from the train station, past the packing plant, through shanty town, all the time saying, "It won't be long now!" Of course, when they did arrive, what she saw was better than what she thought it was going to be.)

Two years later, Charles S. Denman, manager of the Des Moines Water Works, hired me to take care of the grounds, which then consisted mostly of taking care of the newly-landscaped area immediately surrounding the Water Plant. But Mr. Denman had ideas; and when these ideas were explained to me, I grabbed at the chance to work them out. At that time, the Des Moines Water Works owned some 800 or 900 acres of land along the Raccoon River which have since been increased to about 1500 acres, not counting the 1200 acres at the newly-created Impounding Reservoir near Commerce.

Mr. Denman's principal idea was that a municipal institution such as the Des Moines Water Works could be beautiful as well as useful; in fact, it should be. And he left no stone unturned to accomplish that and to prove his point. Mr. Denman disliked the mediocre. He used to say, "If you cannot do a thing well, leave it alone." The things he stood for were orderliness and neatness, and when it came to landscaping, he wanted "fitness". As he said to me, "We want our native birds, our raccoons, our opossums, our native trees and flowers, but not tigers, lions, or crocodiles in cages."

That did not mean he did not want trees or flowers that were not native. But he wanted those in the gardens where they might naturally be expected, or on a tract set aside for them. The woods and open areas away from the Water Plant should be left as native as possible, but he suggested that there could and should be a collection of some kind of plant that would be of special interest to plant lovers. What could we do? Lilacs were

mentioned, but there were several cities known for their lilacs. Roses? A little risky on a large scale in Iowa. Flowering cherries were not hardy enough. There were more of such suggestions until the subject of ornamental crabapples was brought up.

One of the difficulties that manifested itself was that of getting true-to-name varieties from the nursery trade. The nurserymen cannot be blamed entirely for this. Many of them have never had an opportunity to see these trees in flower or in fruit. But we wanted the trees correctly named. And that involved studying and reading about them. However, we found the appropriate literature deficient here. Good descriptions are difficult to find, often they do not agree, and in many cases the average person just cannot find them.

It became necessary to ask various botanical institutions for help in getting the right propagating material and information. It is wonderful how all those institutions, including Arnold Arboretum, Morton Arboretum, Rochester Parks Department, Swarthmore College, Kew Gardens, and the Parks Department in Den Hague, Holland have responded and cooperated.

Nevertheless, even they have their difficulties in finding facts, which often must be dug up from ancient newspapers, magazines, and old books that are so rare that a library would hesitate to loan them out. It has been possible in several instances to obtain photostatic copies of much-needed pages of rare books, but even the Congressional Library in Washington cannot supply all the data that are probably in existence but nowhere to be found. It is a continual struggle to resurrect such information. (Note: Much of his work was done before Thermofax and Xerox machines. To gather his information, he would go through yearly transactions of the State Horticulture Societies of Iowa, South Dakota, and other states, as well as other books and documents, and copy by hand the information he could find about crabapples. He put me to work doing the same thing, and I was happy to do it. All that information now resides in his files which were sent to the National Arboretum after his death, and are presently in my possession.)

Here ends the story as told by A.F. den Boer. What follows are my recollections of his work with crabapples:

His first attempts at propagation were done at the Des Moines Water Works with employees in his department. He had some difficulties with maintaining identity and quickly began with the growing of plants in his back yard. The first 100 crabapple seedlings to be used as understock for budding were planted with the use of a post-hole digger. The following year, he rented an acre of land immediately behind his property, had it plowed, and was able to plant seedlings in a more proper manner. Later, he rented an additional acre and a third and planted about half of that in crabapples. Scions were obtained from any source he could find that would add to his collection of crabapples. On a trip to Europe in 1947, he sent scions back to the Water Works, and one of his employees budded the material to the understock. The crabapple collection is on a tract of land belonging to the Water Works alongside a highway.

He requested help from the Japanese government and was able to get seeds of the Formosa Crab from them. The story about how they were obtained and what happened is a separate story to be told.

As he mentioned, information available about the various crabapples was not great. He added to the available information by taking copious notes throughout the years. He recorded blossom dates, made drawings of flowers, fruit, and tree forms, took colored pictures of flowers and fruit, collected seeds, collected specimens for a herbarium, and described the features of the flowers, fruit, and leaves. On vacation trips, his eyes were constantly on the lookout for crabapple trees. He would stop to cut specimens for his herbarium collection, and note where they were obtained. He would take different routes from one point to another just so that he could cover more ground. His herbarium and seed collection are at the National Arboretum.

One summer day, he injured his ankle and was instructed by his doctor to stay off his feet for a couple of weeks. He was not one to do nothing. For a long time he had thought about writing a book about crabapples. Obviously this was the time to start, and he did. For two solid weeks (and for another year) he wrote his book. He selected a publisher he thought would be interested

and suitable and sent his manuscript off with much excitement. It was returned several months later, rejected. The book was sent out several more times, each time rejected. The last time the manuscript was returned he didn't even open the package, just put it up on a shelf and forgot about it. Several years later, when others had advised him of a possible publisher, he pulled out the manuscript to find that the last editor had gone through the entire book and made comments about how it could be improved. He updated the book, added the suggested improvements and sent the manuscript to the American Association of Nurserymen, who agreed to publish it.

He received many recognitions for the work he was doing. The following are some of the awards and medals presented to him:

The Jackson Dawson Memorial Medal by the Massachusetts Horticultural Society for developing outstanding hybrid crabapples, December, 1952

Johnny Appleseed Award by the Men's Garden Clubs of America for meritorious service in horticulture

Award by the Iowa State Horticultural Society, 1949.

During his life, he helped many people in many diverse ways. His interest in the outdoors led him to be a Boy Scout counselor. He tutored many boys for merit badges in birds, tracking, wild flowers, and other subjects. He, with the consent and help of his wife, housed several people for a few weeks. One boy, a scout that he had tutored, stayed with us for a few weeks while a broken shoulder blade was mending. Another, Count deZak, an artist, cut his toe with an ax while he was in the process of building a log cabin and stayed with us for several weeks while his foot healed. Others stayed for similar reasons.

The one form of help even noted by the Queen of The Netherlands was his help in getting clothing to the Netherlanders immediately after World War II. Sometime before VE-day, the post office began accepting small packages for delivery to Europe, with the understanding that the packages would be held in England until such time as they could be delivered. He sent many packages to his and his wife's relatives. His friends indicated that they, too, would like to send packages, and he was able to get names and addresses from Holland for this

purpose. He kept up with postal regulations as package sizes changed and advised those sending packages of the latest rules. His information was more up-to-date than the local post office's, and, as a result, the local post office accepted whatever he delivered there. Radio station WHO in Des Moines heard about what he was doing and asked him to begin a project that involved the entire listening area of WHO. Those that were interested wrote to WHO telling them the sex, age, and sizes of their family. WHO passed the letters to my father who matched the family with a similar family in Holland. This, of course, led to correspondence. These same people would then send letters to WHO for translation. For over a year, my father and one other man, a Mr. DeYoung, translated them.

One man in Holland insisted that any clothing sent to him and his family was to be black. My dad realized that this would be a very difficult match to make, so he ignored the request. He figured that if that man didn't like the clothing, he could give it to someone else, and the effort would not be in vain. Of course, when he had to translate the letters coming from that man, he used what he called "poetic license" so that the couple in Iowa would not discover the writer's irritation in getting clothing that was not black. As luck would have it, the couple in Iowa decided to make a trip to Holland to visit the recipients. My father discovered this before the trip was made and had to confess. Fortunately, the family making the trip saw humor in this and was better prepared for their visit in Holland. The Queen of The Netherlands recognized the good work he did by having a plaque presented to him as a token of her appreciation. He received similar recognition from the city of Gouda, where most of the clothing was sent.

Sketching was something he did from an early age. In the mid-1930s he decided to do drawings in pastel and watercolor. By the late '30s, he was painting with oils. Not having a canvas to work on one day, he decided to use the wall in his den for a canvas and painted a scene of a river. He had made pastel and watercolor drawings of the Raccoon River and wanted to do that same scene on his wall. When the painting was finished, he got a frame and nailed it on the wall over the picture. As he gained experience in oils, he ventured into portraits. He was sufficiently successful in this area to have the Board of the Broadlawns

General Hospital in Des Moines ask him to paint the portraits of each of its members. During this period of time he took courses in pastel, watercolor, and oil painting.

He continued his work with crabapples diligently until he had his heart attack in 1950. For several years after that he did little to nothing about his crabapples and then was able only to maintain his collection and keep up with correspondence. His note taking dropped off very considerably.

In 1961, he retired, went to Europe for a year of vacationing, and then died onboard ship during his return to the United States. He is buried in Greensboro, North Carolina.

How to Make Crabapple Jam

By
Louise Littlepage

One of the highlights at the Annual Spring Plant Sale at the Holden Arboretum in Mentor, Ohio is the Gourmet Delights booth. It all began in 1974 when Homer Jacobs, Consulting Arborist for the Arboretum, was putting together a lecture and a slide program on "The Crabapples." As part of his presentation, he wished to stress that not only were crabapples an addition of beauty to the landscape and food for birds and animals, but their fruits were edible to mankind and made delicious jellies. To prove his point, he had a friend make up several varieties of crabapple jellies for display and tasting. Mr. Jacobs then donated the collection to the Plant Sale. Needless to say, they sold out immediately. This led to the idea of making jelly annually from the Crabapple Collection for the Annual Plant Sale at the Holden Arboretum. It has been a most successful venture.

Each year a committee of volunteers makes two hundred to three hundred jars of Crabapple jellies and jams. A chairman coordinates schedules for harvesting, purchasing of ingredients and supplies, cooking times, and delivering the finished product for storage until spring sale. A label using the Arboretum logo was designed.

We began with Neville Copeman, Redflesh, and Kola. At first we made only jellies, then used the crabapple juice as a base to which we added Rose Geranium and Mint. Because it seemed so wasteful to discard the pulp, we sieved out the seeds and skins and made jams and crabapple butter. (*The Garden Way Squeezo* strainer is excellent for this task.) Our director, Eliot Paine, alerted us to the attributes of the Selkirk, and Dr. Nichols suggested Dolgo and Chilko. Last year we added John Downie, and we will keep experimenting with other varieties. Dr. Green has suggested we try Alexis, Ralph Shay, and Hopa. Through the years, the chairman keeps a folder listing the varieties of trees best for jelly, the time they are ready to harvest, and their location. She also makes a report to file and give to the chairman of the Plant Sale Committee.

Volunteers harvest the fruit, then the juice is extracted and put

in gallon glass jars and refrigerated (or frozen) until volunteers come to make up the juice into jellies. Two years ago we bought a marvelous Finnish product -- *Meher-Maija*, a steamer method whereby the washed fruit (no need to peel, cut up, or remove stems or blossoms) is steamed and the juice siphoned into a jar after the designated time. Write to Mehu-Maiga, Osmo O. Heila, Podunk Road, Trumansburg, New York 14886 for information and priceing. We found the small crabapples yielded little juice. We have used the basic Certo crabapple (apple) jelly recipe. The jelly is ladled into eight and four-ounce jars. (Don't label until they are totally cooled, as we found the labels didn't stick when jars were still warm.) Ohio law requires that new jars and lids be used (no paraffin) and water bathed five to ten minutes. The jars are then stored until the time of the Plant Sale in the spring. If we don't sell all we have made, the surplus is given to our Gift Shop to sell. Suggested price is $1.25/4 ounces and $2.50/8 ounces.

For further information, write to Chairman, Gourmet Delights Committee, The Holden Arboretum, 9500 Sperry Road, Mentor, Ohio 44060.

(Ms. Littlepage worked for seventeen years at Lantern Court at the Holden Arboretum until her retirement in 1990. She was a volunteer with the Crabapple Jelly Committee from the beginning. *Peter Bristol*)

DIRECTORS