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ROSA (ROSE)

My first attempt at plant breeding was with roses. Either in 1907 or 1908, I crossed *Rosa rugosa* with one of our wild roses and this success encouraged me to try some other crosses. I used pollen of M. Norbert Levavasseur on *Rosa rugosa* and obtained three seedlings, one of which was identical with the variety that was to be brought out about fifteen years later as F. J. Grootendorst. It was not, however, entirely hardy, usually killing back to within a foot of the ground each winter, although it did flower quite freely on the wood that survived.

I rather liked this rose and thinking it might do well at Ottawa I dug it up, together with some other plants and sent them on to Dr. W. T. Macoun at the Central Experimental Farm, Ottawa. The same day I also sent some plants to Professor F. W. Brodrick at the Manitoba Agricultural College. Both parcels were sent by the same railway from Roblin; no parcel reached Professor Brodrick, and the plants which he should have received were delivered to Dr. Macoun. It was too late by this time to bother about the parcel that had disappeared.

I wrote to F. J. Grootendorst, Boskoop, Holland, after I had seen the Grootendorst rose and asked if he would care to let me know its parentage as I too was engaged in breeding roses and other plants suitable for our climate. In his reply he stated that his firm had bought the rose with the privilege of naming it, and that it was a chance seedling that had appeared among a batch of *rugosa* seedlings raised by a small

grower near Boskoop. Since then I have seen it listed as having been raised in 1918 by Dr. Goey, the result of a cross between *Rosa rugosa* and Mme. Norbert Levavasseur. Mr. Herman Grootendorst told me that they had had this rose before 1914 but had been unable to market it owing to the war. There is, apparently, some doubt as to who did propagate the rose known as F. J. Grootendorst. I definitely raised an identical rose and its parentage was *Rosa rugosa* x Mme. Norbert Levavasseur. I have tried several times since then to raise hybrids between *Rosa rugosa* v. *alba* and several of the white polyantha types, but so far without success.

For a number of years I tried raising hybrids between garden roses and our three native species. Having no greenhouse, I had to do this work out-of-doors using the native species as female parent because our season was too short to allow seeds of the garden roses to ripen. I was able to raise hybrids between both *Rosa blanda* and *Rosa acicularis*, also several types of garden roses but little of value was secured. "Betty Bland," one of the exceptions, was the result of a cross between *Rosa blanda* and a H.P. Rose which I believe to have been Captain Hayward. I have not been able to raise worthwhile hybrids from "Betty Bland" although George Bugnet, Percy Wright, Dr. Griffith Buck of Ames, Iowa, and Dr. Risley of the University of New Hampshire have all been successful using it in their breeding work.

A hybrid between *Rosa blanda* and the double white *Rosa spinosissima* was also rather a nice thing and a little hardier than *Rosa spinosissima*. *Rosa suffulta*, however, refused to set seed to the pollen of the garden roses although, W. Godfrey, R. Simonet, and others have been able to raise hybrids of *Rosa suffulta* by growing it under glass and using it as the male parent.

Most of my earlier hybrids of our native roses either lacked hardiness or were sterile. Then I had the idea of crossing *Rosa rugosa* with the native roses, and again, for a time, I had a measure of success. Three of my varieties, "Will Alderman," "Wasagaming" (Plate 13, page 76), and "George Will," all having a *R. rugosa* x *R. blanda* or *R. rugosa* x *R. acicularis* as female parent, were much hardier than any of the hybrids of the straight *Rosa rugosa* that I had grown.

Twenty years ago I had begun to think I had gone about as far as I could in the raising of hardy roses. I happened to be at the fruit breeding farm at Excelsior, Minnesota, and there I saw a plant of the true *Rosa laxa* growing near the foundation of Dr. A. N. Wilcox's cottage. I was impressed with its possibilities as a parent and begged some of it from Dr. Wilcox. As soon as this rose started to flower I crossed it with a number of other roses including some *Rosa spinosissima* forms. These crosses gave me some interesting hybrids but nothing sufficiently outstanding to be worth naming. I carried them through to the second generation. There was a decided improvement in some of the seedlings, several selections, now under trial, are considered among our most beautiful flowering shrubs.

During the past six years many new combinations have been made with hybrids of *Rosa laxa* and some very promising looking roses of this breeding are under test. Both Dr. G. Buck, of Iowa, and R. Simonet of Edmonton have been using *Rosa laxa* and have succeeded in crossing it with hybrid tea and tea roses. Hybrids of this breeding have proven sufficiently hardy to flower at Dropmore without winter protection. I have also raised hybrids between them and the fully hardy hybrids of my own raising. The hybrids of *Rosa laxa*, unlike the hybrid tea roses which frequently flower when only a few months old from seed, usually require several years to reach the flowering stage, thus making it a much slower process to select and prove the value of this new type of rose. Judging from what has been done in other cases I feel sure that *Rosa laxa* will eventually give us a race of hardy roses with flowers of good quality and considerable fragrance that will bloom out of doors from June until severe frost.

Simonet's hybrid between *Rosa laxa* and a tea rose has proved fertile, both as a seed and pollen parent, and it continues to flower from June until frost. Many crosses were made with it under glass in the early spring of 1959, and many of the seeds resulting from this work have already germinated. Here are some of the crosses that have already given me seedlings—Simonet's hybrid, between *Rosa laxa* and a tea rose, crossed both ways with *Rosa gallica officinalis*; Simonet's hybrid crossed both ways with two hybrid China roses raised at Dropmore (these, like Simonet's hybrid continue flowering throughout the summer and may therefore be expected to give hardy forms that will flower from June until frost).

Crosses were also made between Simonet's hybrid and the following, from which I now have seedlings: Rose Souvenir, Alphonse de Lavelle, Independence, several hybrid teas in yellow and red shades, and a hybrid of my own, having as parents Simonet's Red Dawn and a hybrid of Donald Prior of my own raising. This latter cross brings together the blood of *Rosa laxa*, *Rosa wichuriana*, and the garden hybrid tea and floribunda roses.

My earlier crosses with *Rosa laxa* gave bushes with either white or pale pink flowers, some of them with a hint of cream in their colour. It is to be expected that the inclusion of these new blood lines will eventually bring both red and yellow colours into this new race as well as the continuous flowering habit. This habit of flowering on new wood will obviate the necessity of having rose bushes that are hardy to the tips, bushes that have sound wood below the snow line will break into flowering from this sound wood and continue flowering while there is growing weather.

Rosa virginiana seemed to be promising as a parent, and I made many crosses with it only to get rather thin petalled flowers of little worth. One autumn, however, I was able to secure a plant of the white form from the Arnold Arboretum. It arrived too late to plant out doors and was potted up and grown under glass together with some of the old

roses that had come to me from Britain. These included *Rosa damascena Celsia* and a white *Rosa gallica*. When these old roses flowered under glass, reciprocal crosses were made between them and *Rosa virginiana alba*. The old roses did not produce seed (I have never been able to get seed on *Rosa damascena Celsia*) but *Rosa virginiana* did, and among the seedlings raised were a fully double white and a pink variety, very similar to *Celsia* but with flowers just a little smaller. These two are now under a more extended test, and as both are fertile they are being carried through to the second generation.

I looked over several plantings of the old roses while in England in 1947. There were several *centifolia* and *gallica* forms that were quite dwarf and therefore likely to be hardy in Canada as they would be under snow most winters. I was able to secure plants of a number of these roses and several of them have proved sufficiently hardy to come through even the snowless winter of 1957-58 and flower without any protection. Some of these will also ripen seed outdoors, and *Rosa gallica officinalis* will accept the pollen of quite a range of H T and *floribunda* roses. Crosses are now being grown though I find the seed very slow to germinate. I hope to get recurrent flowering varieties that will survive our winters without protection and flower on the new wood by using these dwarf and very hardy old roses as one parent and the hardiest of the modern roses as the other.

Rosa gallica grandiflora is a much taller-growing form than *Rosa gallica officinalis* and more of a blood red colour. It is also hardier and though it grows well above the snowline is never so badly injured but that it will flower freely. I secured several semi-double and double varieties by crossing this with a hybrid between *Rosa rugosa* and *Rosa blanda*. These grew from five to six feet tall; the colour, however, was merely a dark rose pink but with a very nice fragrance.

The best of these hybrids having *gallica*, *grandiflora*, *rugosa*, and *blanda* in their pedigree are now being used with the red-flowered ever-blooming roses in the hope that they will give dark red seedlings that will be sufficiently hardy to stand our winters without protection and take the place of some of the popular red floribundas.

A Damask rose I received from the Province of Quebec under the name of the "Grannie Rose" kills back a bit most winters but always flowers freely, and sometimes ripens seed outdoors. Its flowers are a nice clear pink, semi-double, and very fragrant, and they are produced in clusters. My first hybrids of this were no better than their parent but one that flowered during 1959 was quite dwarf and produced abundant semi-double pink flowers. It is my intention to try and mate this rose with some of the pink floribundas.

A number of hybrids between the old roses, such as "Duchess of Buccleugh," "Duchess de Verneuil" and hybrids having *rugosa* and native roses in their pedigree flowered in 1959. Among them was a very pale pink moss rose, a dark red moss and several bright red, fully double roses of good form. Several of these ripened seed outdoors and will be

used in breeding work during 1960. Most of these are quite dwarf and, if they will mate with such varieties as "Independence," "Donald Prior" hybrids and my China rose hybrids, may provide everblooming forms.

Under Iowa No. 9 I got scions of a rose from Dr. Buck that is said to have been raised from irradiated seeds of *Rosa multiflora* x *Rosa blanda*. This rose has smooth greyish stems that only in very rare occasions have any thorns or prickles, and the stems have a soft, velvety feeling when one rubs the fingers over them. The leaves, semi-double white flowers, and the fruits are all like those of some forms of *Rosa rugosa*. The bush is, however, hardier, and will set fruit to a wide variety of other roses; and the seedlings all showed little evidence of *rugosa*. None of these seedlings has yet flowered. A patch of them was planted out in the spring of 1958. Peace was one of the pollen parents used and one seedling has large, glossy leaves like those of Peace.

Rosa altaica gave me no hybrids worth looking at until I crossed it with the double white *Rosa spinosissima*, known as the "Burnett rose." This cross resulted in the variety "Isa Murdock," a very free-flowering and fragrant variety that has a longer flowering period than either parent. This rose has white double flowers, as a rule, but in some seasons many of the flowers are edged and faintly tinged with pink. Here again, I found that by crossing two species together and then crossing the hybrid with some garden rose the result was a rose more like the garden rose parent. The other species used was our native *Rosa acicularis* and the resulting hybrid which I named "Altalaris" became one of the parents, with a hybrid perpetual which I believe to have been Capt. Hayward, of "William Godfrey," a pale pink rose of H. P. quality that kept flowering most of the summer. It proved very susceptible to black spot, unfortunately. By crossing Wm. Godfrey with another of my hybrids I secured four nice roses. One of these, now named "Appleblossom," keeps flowering throughout the summer and is now being tested in Europe where it has already created some interest. A beautiful and very double creamy white sister seedling inherited Wm. Godfrey's susceptibility to black spot.

I have not only found Altalaris a useful inter-specific hybrid for further rose breeding but other breeders are also using it in their work.

The old China roses, such as Hermosa, are old favourites of mine and I have made many attempts to raise hardier hybrids of it. I was successful in the 1930s in crossing this rose with a variety of *Rosa alba* and obtained four seedlings. These proved root-hardy and flowered outdoors for a number of years, but eventually they killed back so badly that they did not flower early enough to ripen seeds outdoors. Potted plants have, however, ripened seeds, giving me a variety that is a little hardier, quite fertile and with flowers of as good size and fragrance as Hermosa. This has been crossed both ways with both *Rosa gallica officinalis* and Simonet's *laxa* tea hybrids; and quite a few seedlings have been secured.

Rosa arkansana W. J. Fargo, though closely related to *Rosa suffulta*, accepted the pollen of one of my China rose hybrids and, in December 1959, I had quite a few seedlings of this cross growing in pots.

The flowers of this rose are of good form and of a clear, pink colour – a much nicer shape and colour than those of *Rosa suffulta*, known as the “Woodrow rose.”

Many crosses were attempted with the Woodrow rose. As its pollen is apparently useless it was used as a seed parent. Four seedlings were all that grew, and though no record of the male parent was kept it seems apparent that it was a *spinosissima* hybrid. Two of the four seedlings were single, and two semi-double; otherwise there was little difference either in flower colour or type of bush. The one with most petals was saved and the rest discarded. “Prairie Pinkie” was the name given this rose which flowers for most of the summer. I tried hard to cross this rose with everblooming garden forms without success, but bushes grown near a planting of *Rosa laxa* hybrids set a small amount of seed and I intend to try and raise seedlings from it.

I have had some success in rose breeding outdoors by using the conventional methods of emasculation and covering with paper bags, but I find that better results are obtained by using pot plants under glass in early spring. Some roses, *Rosa rugosa* and some of its hybrids especially, ripen their pollen before the flowers are open and may have to be emasculated several days before the flowers would open normally. This lessens the amount of seed likely to set due to outdoor drying conditions, while with lack of insects and less drying conditions under glass, emasculation can be delayed longer and of course it is not necessary to bag the emasculated flowers: under these conditions I find I have a much better set of seed.

In the above more or less chronological account I have mentioned nine of my rose varieties, namely: Altalaris, Appleblossom, Betty Bland, George Will, Isa Murdock, Prairie Pinkie, Wasagaming, Wm. Godfrey and Will Alderman. Thirteen others are discussed below.

“Beauty of Dropmore” (Plate 14, page 76) was obtained from a cross between *Rosa altaica* and the double white form of *R. spinosissima* known as the Burnett Rose. It is a hardy shrub rose growing to six feet in height with good foliage and handsome pure white fragrant flowers some of which are of almost hybrid-tea form. It was catalogued in 1956, but as there was little demand for this type of rose at that time propagation of it was discontinued for the time being.

“Butterball” is an ornamental shrub with arching sprays of single cream-white flowers. This variety was listed in 1950, but as there was little public interest in this type of rose at that time its propagation was also discontinued for the time being.

“Dropmore Yellow” is a hybrid of *Rosa lutea* to the pollen of *R. altaica*. The leaves and stems are intermediate between the parents in type, but the flowers are like *Rosa lutea*. This rose has been found more fertile than *R. lutea* and has been distributed for breeding purposes.

"Haidee" (Plate 15, page 77) is a *laxa-spinosissima* hybrid listed in 1953. It grows to a height of about five feet, with neat foliage resembling its *spinosissima* parent. The three-inch double cup-shaped flowers are clear pink in colour, with a cream centre, and are followed by dark red fruits. When grown at the National Arboretum at Ottawa, Canada, it was described as one of the choicest of shrub Roses.

"John McNab," first listed in 1932, is a hybrid between *Rosa rugosa* and *R. beggeiana*, the latter being from central Asia. It is a hardy shrub growing about four feet tall with an abundance of shapely pink flowers in June, and recurrent bloom throughout the summer.

"Mrs. John McNab" is of the same breeding as "John McNab," with the same growth habit, but the flowers are white, though occasionally a flower will be found with just the faintest touch of pale pink.

"Karen" (Plate 16, page 77) is a hybrid between *Rosa primulina* and the double white *R. spinosissima*. It has very neat *spinosissima*-like foliage and shapely cream white, double flowers which appear in June. It was introduced in 1964.

"Mossman," listed in 1954, is from the triple cross (*R. acicularis* x *R. rugosa*) x Moss Rose. It has pale pink full-double flowers. My earlier hybrids of the Moss Rose had all been misshapen things, and this was the first with shapely, double flowers that had the stem and flower buds truly "mossed."

"Pink Garland," from the cross *Rosa blanda* x *R. spinosissima* was introduced in 1935. It is a very floriferous shrub growing to two feet in height with semi-double pink flowers appearing in June (Plate 17, page 77).

"Polyana," from *Rosa rugosa* x *R. polyantha*, was introduced in 1925. It had fully double pale pink flowers in clusters. This rose was sterile and is now lost.

"Suzanne" (Plate 18, page 78) was obtained from the second generation of the cross *Rosa laxa* x *R. spinosissima*. It is a fully double, pink-flowered variety that was introduced in 1950. It is a fully hardy shrub rose that flowers very freely in June and continues to flower throughout the summer. It is fertile, and has been used by other breeders in their work.

Rose Breeding at Dropmore in Recent Years

The year 1961 was the driest, hottest on record and many plants succumbed to the heat and drought including some of my rose hybrids. Still quite a few survived and came through the winter of 1961-62 without any winter protection, thus showing that the lines I had been using were likely to bring the breeding of hardy continuous flowering roses a step nearer. The introduction of species roses such as *Rosa laxa* has a tendency to delay the flowering of their hybrids, and none of my hybrids of *Rosa laxa* that germinated in 1961 have yet flowered. But a high percentage of the 1960 seedlings flowered in 1962 and showed a definite advance in the raising of everblooming forms that are sufficiently

hardy to survive our winters without any protection and flower freely from June until cold weather puts an end to their growth.

Hybrids between such varieties as *Rosa gallica officinalis* and Souvenir de Alphonse de Lavelle and some of the floribunda roses frequently flower the same year as the seeds germinate. But they do not make as strong growth as the species do, and after a test year like that of 1961 the casualties are likely to be heavy during the first winter.

Among the hybrids raised in 1960 quite a few having *R. laxa* x tea (Simonet) as one parent, flowered in 1962 and show that this line of breeding has great promise both from the standpoint of hardiness and continuous flowering; and a high percentage are fertile; one a semi-double white had quite a few flowers in mid-October while bearing a good crop of bright red hips. Many of course were single but one that had nicely shaped deep pink flowers I have tentatively named "Isabella Skinner" (Plate 19, page 78) started flowering in June and continued until mid-October. It is a bush to six feet tall and though it kills back about half in winter it is back to full height again by mid-June.

Two seedlings of Rose W. J. Fargo to the pollen of Simonet's Rose flowered for about six weeks; their flowers were cup-shaped, pale pink in colour and the plants were fully hardy bushes to two feet tall; the fact that they are fertile is a very promising feature of these two, as hybrids of our native *R. suffulta* are usually sterile.

Rose Iowa No. 9 that set seed so freely and looked so promising as a parent, proved a bit disappointing, so many of its seedlings had deformed, pale pink flowers and only one produced any seed. There were three however that were promising, two to the pollen of Souvenir de Alphonse de Lavelle were a very good dark red, one nicely cup-shaped the other with flowers the shape of rose F. J. Grootendorst, both these were June flowering only. The third had a hybrid China of my own raising as pollen parent, it had fully double pink flowers shaped like the old China Monthly Rose and it continued in bloom until October. The first season of flowering is seldom typical and some of those that did not look very promising in 1962 may look much better in 1963.

Rosa gallica officinalis when crossed with Simonet's Rose produced a lot of hardy free-flowering dwarf bushes with flowers reminiscent of some of the old Damask roses. So far however they flowered in June and July only. These set seed freely and if crossed with some of the hardier floribunda Roses the continuous flowering habit of Simonet's rose may be regained. Of course I could not resist the temptation to make some more crosses with the most promising of these new hybrids.

Crosses between *R. gallica* and Souvenir de Alphonse de Lavelle that germinated in 1962 flowered freely, and owing to better weather conditions made satisfactory growth. The pollen parents were mostly my own hybrids of Independence and Donald Prior and the colour of those that flowered was a deep velvety red. These are all planted out-of-doors without any protection so that they must have a certain amount of hardiness to survive their first winter.

In 1960 I raised a number of hybrids having as one parent a China rose hybrid of my own raising that was root-hardy and using as the other parents Simonet's *R. laxa* hybrid and Souvenir de Alphonse de Lavelle. Several of these have flowered that are hardier than the Old China rose and at the same time have inherited the remontant flowering habit and shapely double flowers. One of these that I have named "Jessie Anderson" has survived the past two winters without protection and has flowered from June onwards. The flowers are deep red in colour and larger than those of the Old China rose.