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NOTE: In all the pedigrees given in this list, the seed parent is listed first.

This Society will hold its Fortieth Annual Meeting at Pierre, January 15, 16 and 17, 1929. Each year premiums of new plants or seeds, especially the new varieties which I have originated the past thirty-three years, are distributed to members. The Department of Horticulture at South Dakota State College does not conduct a commercial nursery, but originates, imports and distributes new varieties. Many valuable new fruits are ready for propagation. These premiums will be sent until May 1, if the weather permits. After May 1, 1929, the only premiums available will be gladiolus or one of the older reports of the Society. Annual membership, \$1.00, entitles the member to one copy of the latest annual report and \$1.00 worth of plants or seeds selected from this list. In addition, one of the large old reports will be sent without extra charge. Life membership, \$10.00, entitles the member to the annual volumes as far as available and to \$10.00 worth of plants or seeds selected from this list. Please send your membership promptly, because the stock of premiums is limited. Those who do not wish the membership may order the stock at prices listed. Address the Secretary, Prof. N. E. Hansen, Brookings, South Dakota.

PROGRESS WITH PEARS

My opinion is that successful pear culture for home and market use is now possible for all South Dakota and the prairie Northwest, also for southern Manitoba and Saskatchewan. In 1924, I thought it would save fifty years of time by going to north Manchuria in the mountains along the railroad. I found the western limit of this northern type of Pyrus Ussuriensis to be about fifty miles north of Harbin, where the temperature ranges to about 47° below zero. The fruit of this winter pear is about 2½ inches long and 2 inches across. The foliage is very ornamental in the fall due to the bright red and yellow color. I see no reason why it would not be a good shade tree for the lawn. It may be worth trying a few as a roadside or street tree.

The value of this type of pear is the strong resistance to the bacterial disease known as fire blight which kills the ordinary pear. From the seeds picked from the fresh fruit in 1924, I grew many thousands of trees in 1925. In 1926 most of them were transplanted in the State Orchard at Watertown. They have now grown three years and are ready for the final transplanting. The nurseryman should plant an orchard to provide hardy blight-resistant nursery stocks for the new hybrids now coming on. Pyrus Ussuriensis from the extreme southern part of Manchuria, did not prove hardy at Brookings. The main bulk of these seedlings introduced in 1926, known as Harbin pears, will have their final transplanting in the spring of 1929, the exact number depending on the land available and the action of the legislature for the coming year. It is an urgent matter because this seed was gathered at the far North, and such a strenuous tour of exploration cannot be made every year. The ordinary commercial Pyrus Ussuriensis seed is from sources much further south and such seedlings winter-kill at Brookings. Price of Harbin pear seedlings:

Size No. 1, Trees 3 to 4½ ft., each \$1.00; 12 for \$9.00.

" No. 2, " 3 to 4 ft., each 75¢; 12 for \$6.00.

" No. 3, " 8 to 24 inches, each 50¢; 12 for \$4.00.

Ming Pear: A Good Hardy Pear for the Northwest

I hope to have many more pear hybrids coming on in the future, but the Ming pear is worthy of trial right now. The original tree bore a heavy crop in 1926 and again in 1927. It has proven very resistant to fire blight. Pedigree: Pyrus Ovoidea x Louise Bonne de Jersey, a choice French pear. The fruit is of good commercial size, flesh melting, of delicious flavor, a first class pear. One-year-trees, budded on Harbin pear seedlings, each \$1.00.

Russian Sand Pear and Pyrus Ovoidea Pear

Described in Bulletin No. 224. One-year-old seedlings, 3 for \$1.00.

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Redflesh Crabapple: Good for the Lawn and for the Orchard

Introduced 1928. A most remarkable novelty, that is probably destined to world-wide popularity wherever apples are grown. The tree is ornamental as well as useful, the beautiful red flowers and moderate growth making it a highly desirable lawn tree. The original tree gives promise of being a good annual bearer and bore its first two crops in 1927 and 1928. The fruit in size is $1\frac{1}{2} \times 1\frac{5}{8}$ inches in diameter, in color a brilliant solid polished dark red all over. The flesh is red throughout and makes excellent red preserves and red jelly which attracted favorable attention at the State College exhibit at the South Dakota State Fair, Huron, September, 1928. Season, fall. Pedigree: *Pyrus Malus Niedzwetzkyana* x Elk River, Minnesota, wild crab. The seed parent is from the Tian Shan Mountains that separate Russian Turkestan and western China. Price of trees, one-year-old root-grafts on common apple stock, each \$1.00.

The Taming of the American Crabapple

has been one of my favorite experiments since coming to South Dakota thirty-three years ago. This work is now beginning to yield results. Many more hybrids were fruited the past season. When bred back to the apple they will probably be of better quality, but at least these are a good beginning towards an apple that will keep a year after picking. The Nevis wild crab hybrids were first announced in my paper, *The Relative Value of Homozygous and Heterozygous Parents in the Breeding of the Apple, Plum, Cherry, Grape, and other Fruits*, which I prepared for the Fifth International Congress of Genetics at Berlin in 1927. I am developing a large lot of apple hybrids of intricate pedigree, including the native American wild crabapple, with the object of reducing the size of the tree so as to permit easier spraying, and to promote early bearing. Such trees will be of special value for home orchards in the prairie Northwest.

Chinock Apple. Introduced 1919. The first of a series of hybrids of the standard apples with the wild crab in which the wild crab is the pollen parent. Pedigree: Baldwin apple x Elk River, Minnesota, wild crab, about 40 miles north of Minneapolis. Fruit two inches in diameter, oblate, of a fine dark red, sub-acid; season, late winter. Price of trees, stocky, transplanted, on Siberian crab roots, each \$1.00.

Wakpala Apple. Introduced 1928. A choice late winter apple worthy of notice, but probably not for the far North. Pedigree: Mercer crab x Tolman Sweet apple. This makes the Wakpala apple about $\frac{3}{4}$ cultivated apple and $\frac{1}{4}$ wild crab (*Pyrus Ioensis*). Fruit medium size, $2\frac{1}{8}$ inches in diameter, round, yellow, striped with red. Flesh white; subacid with spicy sweet fragrance with faint trace of wild crab. Cooks quickly into excellent sauce. Season, late winter. One-year-old root-grafts on common apple stock, each \$1.00.

Wecota and Wetonka: Winter Crabs for the Far North

Wecota Apple. Offered for the first time. Pedigree: Nevis, wild crab x Northwestern Greening apple. Fruit two inches in diameter; round; skin oily; flavor acid; not very acerb. Cooks up softer than the others and with less wild crab flavor. Season, all winter. The Wecota and the Wetonka are the first two hybrids of the wild crab from Nevis, Minnesota, the farthest northern point where this species has been found wild. One-year-old root-grafts on common apple seedlings, each \$1.00.

Wetonka Apple. Offered for the first time. Pedigree: Nevis wild crab x Wolf River apple. Fruit about $1\frac{3}{4}$ inches in diameter; clear greenish yellow, largely covered with mixed lively dark red with darker splashes and stripes; surface very oily; fragrant. Flesh white; moderately juicy; firm with slight wild crab flavor. Cooks up into a fair sauce. Season, late winter. A great improvement over Nevis, the wild crab parent. One-year-old root-grafts on common apple seedlings, each \$1.00.

Anoka Apple. The Anoka apple is probably the earliest and heaviest bearing apple in the world at the present time. Trees of the Anoka apple were recently ordered by the government of New South Wales, Australia, and trees have been sent to other foreign countries as well as all over the United States. The Anoka apple is attracting world-wide attention because it bears freely on one-year-old wood, beginning the second year after planting a one-year-old tree, and annually thereafter. Good transplanted Anoka trees, budded on Siberian crab stock, each \$1.50, such trees for the North. Anoka trees, one-year-old root-grafts on common apple seedlings, each \$1.00, these trees to go South.

Three Good Crabapples: All Hardy and Productive with Good Fruit.

The Ivan, Olga and Sugar crabapples are described in Bulletin No. 224. Some stocky transplanted trees, $2\frac{1}{2}$ to $4\frac{1}{2}$ feet in height, each \$1.00.

Teton, The Best Pure Native Plum.

The Hansen hybrid plums combine large size, choice quality and hardiness, and are grown in immense numbers in many western states from Texas north into Canada. The plums which I have originated and introduced in the past thirty-three years are described in Bulletin No. 224. However, I also believe in improving the pure native plum of South Dakota. The best I have been able to do so far is the Teton plum, introduced in 1912, which I found along the Missouri River in Campbell County, South Dakota. The fruit is one and three-eighths inches in diameter, the color red, flesh of good quality, practically freestone, skin thick but cooks up readily. The Teton is very productive. No matter how many hybrid plums are introduced, I believe that some of the pure native plums should be in every orchard to provide abundant pollination of the blossoms. Stocky transplanted Teton plum trees, 3 to 6 feet, each \$1.00.

Improving Manitoba Plums. From my work with Manitoba wild plums, I have some stocky transplanted trees, 4 to 6 feet in height, each \$1.00. They are mostly Winnipeg, with a few Ojibwa and Pembina.

Sanoba Hybrid Sandcherry.

Offered for the first time. Pedigree: Sapa x Dropmore, Manitoba sandcherry. The name is made up from the two words, Sapa and Manitoba. The Sapa is my hybrid of the South Dakota sandcherry with the Japanese plum and is famous for its black-red flesh and choice quality. At Brookings, the Sanoba is a good plant; productive; of upright habit; fruit thirteen-sixteenths inches in diameter; flesh red; good quality; pit round and small. If the Sanoba inherits the extreme hardiness of the Manitoba sandcherry, it will be hardier than the Sapa and hence very popular in Manitoba and Saskatchewan. Only 21 trees available, budded on native plum, each \$1.00.

The Hansen Select Sandcherries

are selected from several hundred thousand seedlings through seven or eight plant generations of the native sandcherry, a low shrub of western South Dakota. They vary in size and quality of fruit. The largest is one inch in diameter. However, the fruit of all the seedlings makes good sauce and preserves. Also desirable as a low shrub in front of taller shrubs on the lawn; has white flowers and glossy leaves. See Bulletin No. 224. Strong seedlings, five for \$1.00.

Hardy Grapes.

My thirty-two varieties of hardy grapes developed from the native grapes of South Dakota, North Dakota and Minnesota, created a sensation when they were first introduced in 1924. Some of them are as large as Concord and all are hardy without winter protection. Chonkee, Azita, Siposka, Ree, Ecna, Sonona and Shakoka, one-year-old vines, as long as they last, customers' choice, each \$1.50; my choice, each \$1.00. There is one set of 35 varieties available, and 23 sets containing 23 varieties. For description see former lists.

Progress with Hardy Roses.

At Sioux Falls and Brookings, some twenty acres are devoted to originating roses that will be hardy without winter protection. This work has been attracting national attention. The Rose Annual of the American Rose Society with 5,000 members, emphasizes the fact that South Dakota is the first state in the Union to have a State Rose Garden. More than 100,000 new rose seedlings are coming on. A few sprouts from the original plants of Yuhla, Yatkan and Mrs. Mina Lindell roses are available at \$1.00 each, my selection. Plants of fifteen of my hardy roses were introduced in 1927.

Perennial Sweet Pea (Lathyrus tuberosus)

which I obtained in the dry Semipalatinsk region of Siberia in 1913, forms a long tuber; blossoms, bright pink color. An interesting novelty. Price: 2 tubers 50¢

Gladiolus, the Best Summer Bulb for South Dakota.

No named varieties are sold from our collection of over 1,100 varieties, one of the largest in America, but 16 assorted bulbs, not named, will be sent as a membership premium for \$1.00 as usual. Note our annual State Fair, Huron, display.

Indigobush (Amorpha fruticosa), An Interesting Native Shrub.

Of spreading habit. Common in South Dakota. Graceful ornamental feathery leaves, with 11 to 21 leaflets. Blooms in July in slender racemes of small dark violet-purplish flowers with yellow anthers. Useful as a background shrub. Strong plants grown from seed gathered near Pierre. Each 50¢.

