

Historic, archived document

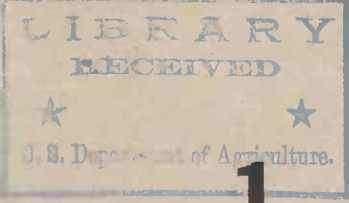
Do not assume content reflects current scientific knowledge, policies, or practices.

6279

Russ

1916

South Dakota State Hort. Society



1. Plants for Dry Western Uplands

2. Some New Hybrid Fruits

3. \$50 in Prizes

First Edition, Feb. 24, 1916

SOUTH DAKOTA STATE FAIR 1915

At the South Dakota State Fair at Huron in September, 1915, a lot of fine plants of these new alfalfas were exhibited from the western uplands. Prof. N. E. Hansen had some of these photographed and appears with the two plants of Semipalatinsk alfalfa in the first illustration and with the one plant of Cossack alfalfa in the two following.

Alfalfa and Other Seeds From Siberia

Gathered by Prof. N. E. Hansen, South Dakota State College of Agriculture and Mechanic Arts, Brookings, S. D.

My fourth expedition to Siberia was in 1913 to the dry, open steppes near Semipalatinsk, Southern Siberia, a region with a total annual precipitation of eight inches, including both rain and snow, and with a temperature range of from 106 degrees above in summer to 50 degrees below zero Fahrenheit in winter, often without snow. The expedition was authorized by the South Dakota State Legislature, March, 1913.



Semipalatinsk Alfalfa. Two plants grown by Henry L. Jeffries, Sansarc, Stanley County, S. D. on high dry gumbo, without irrigation, and exhibited at the 1915 South Dakota State Fair. The specimen exhibited in 1914 as illustrated in last year's list, had roots about 40 inches in length, diameter across the crown 16 inches; green weight, first cutting 13 pounds; second cutting 4½ lb. Mr. Jeffries has also had excellent results from his large acreage of Cossack Alfalfa.

SEMIPALATINSK ALFALFA

Described in Bulletin 141 and in list for spring 1914. From the dry steppes of Semipalatinsk, Siberia. Some of the farmers who have had excellent results with this alfalfa on the driest uplands of the west now abbreviate this word to Semi. A variety of great vigor and especially adapted to transplanting into cultivated rows. It is not at its best the first season as it first makes its remarkable root system. It does its own subsoiling on hardpan. Flowers yellow.

Plants weigh about 20 lb per 1,000. Plants by express at purchaser's expense, 60 cents per 100; \$4.00 per 1,000.

NOTE. Alfalfa plants will be sold by weight, not by count.

COSSACK ALFALFA

From my 1913 tour to Russia. A hybrid alfalfa descended from a single plant found wild in the dry steppes of Voronezh province of Russia. Cossack, the name I have given it, indicates its place of origin. So many farmers report success with the Cossack that it appears



Cossack Alfalfa. A single plant grown on upland without irrigation at Wall, western South Dakota, and exhibited at the South Dakota State Fair, 1915. The growth shows first and second crop together. Total weight of this plant as shown was 8 pounds, dry weight



The same 8-lb plant of Cossack Alfalfa, dry weight.

destined to wide popularity. The Cossack I regard as the strongest and best of the hybrid alfalfas, many with 500 stems per plant by the second year; a heavy seeder. Recovers quickly after cutting; leaves very abundant. For further description see Bulletin 141, also our spring 1914 list. Flowers much variegated, of many colors.

Plants by express at purchaser's expense, 60 cents per 100; \$4.00 per 1,000.

A. F. Mills, of Wall, Pennington County, western South Dakota, writes: "I am glad that you secured the big alfalfa plant shown in the Wall exhibit. This Cossack alfalfa plant was one of a lot sent out by you in the spring of 1911. The stems measured 7 feet 2 inches and the roots 17 inches long. Before sending it away we combed out quite a percentage of the growth, trying to smooth it into shape, as it and 4 or 5 other plants had fed a flock of chickens during the season. This plant has continued to grow larger each year."



A four months' old field of Cossack Alfalfa seeded 1915 on upland near Pierre, South Dakota

BREEDING FROST-PROOF ALFALFA

These alfalfas all cross readily and the result as far as I have noticed is a plant of great vigor. In Bulletin 159 I describe my method of originating hybrid alfalfas by transplanting the parent plants alternately. The hybrid variety mentioned on page 191 of this Bulletin was perfectly proof against killing frost June 9, 1915. Plants for this purpose of developing your own stock of a frost-proof alfalfa, will be sold as follows: 100 Cossack and 100 Semipalatinsk at purchaser's expense for \$1.10.

NOTE: Many have already found that the Semipalatinsk alfalfa has leaves very resistant to late frosts in spring and early frosts in fall.



South Dakota State Fair 1914

ORENBURG ALFALFA

From the dry steppes of Orenburg province, Russia. Described in Bulletin 141. Flowers yellow. Many farmers express their great interest in this plant since it is a good yielder of excellent hay and has a remarkable habit of forming new crowns from the rhizomes or outlying roots. A small stock of plants which were much crowded in nursery, hence only about one-half usual size. Price \$1.00 per 100.

TRANSPLANTING ALFALFA

Many farmers on dry western uplands are learning by their own experience that my transplanting method insures a stand under conditions when seed fails. While I cannot recommend the method until it is fully standardized and perfected, I feel confident that this will be the coming method for alfalfa in cultivated rows.

Other Forage Plants for Experimenters

SIBERIAN SWEET CLOVERS

In my 1913 tour to the province of Semipalatinsk, Siberia, a region with eight inches of rainfall, I found three sweet clovers, *Melilotus alba*, *M. dentatus*, *M. officinalis* growing wild on the dry steppes. I find that the seed as gathered by the native Tartars is pretty well mixed, but there is much more of the white sweet clover, *M. alba*, than the other two which are yellow flowered. More selection is needed to get these three fully separated. We find *Melilotus alba* is of very strong growth, also that the transplanted plants in cultivated rows seed very freely the first season, much better than when crowded as in ordinary field culture. Price per pound, \$1.00.

SIBERIAN ESPARSETTE OR SANFOIN

A leguminous forage plant from seed I gathered in 1913 on the dry steppes of Siberia. The plants weigh about 39 lb per 1,000.

Seed: Price per ounce, 50 cents. Two year old plants, per 100, \$1.00; per 1,000, \$5.00.

HANSEN'S SIBERIAN RED CLOVER

Seed of the wild red clover as I found it growing near Semipalatinsk, Siberia, in 1913. This should arouse widespread interest at the north wherever trouble has been experienced from winter-killing of the common red clover, which comes to us from the milder climate of western Europe.

Price per 1 oz. packet containing about 16,600 seeds, 50 cents.

HANSEN'S SAMARA PERENNIAL CLOVER

First noted in my list for 1912. A copy of this description sent upon request. A perennial red clover native of the dry steppes of the Volga region and east European Russia. It is *Trifolium alpestre*, Crantz; (S. P. I. 20654) from my 1906 tour. Fine plant but we find difficulty in getting even germination of seed. Freezing or sulphuric acid treatment of seed will probably solve the problem.

Seed per packet ¼ ounce, 50 cents.

DAGHESTAN YELLOW SWEET CLOVER

Melilotus officinalis from Daghestan province, Transcaucasia, bordering on the Caspian Sea. "Considered as a very good fodder plant." This is S. P. I. 20682 from my 1906 tour to Russia. Good abundant foliage and a free seeder. Seed, per ounce packet, 50 cents.

Some New Vegetables

HANSEN'S TURKESTAN RADISH

Much like a flat turnip in size and form, but with red skin and of remarkably mild flavor. In my estimation, a very great advance in radish culture. In 1913 I found this as something new, having been brought to Semipalatinsk by the natives of the dry interior of Turkestan about four years previous. A favorite table vegetable when peeled and eaten with butter. A few packets of this seed were sent out in the spring 1914. A correspondent at Arcola, Manitoba, writes: "The radishes were excellent, of fine flavor. I used six of them at different times and found them to be the best radish for this climate I have found."

The past season we raised a good crop of seeds so that we know this seed is true. Seed per packet, 25 cents. Per pound, \$4.00.

MUSKMELON, HANSEN'S SIBERIAN No. 1

A large yellow smooth muskmelon with white sweet flesh, quality very good. Found in cultivation in the driest steppes near Semipalatinsk, Siberia. I deem it desirable to offer a few packets of this and the three following to experimenters now, instead of waiting. All are extra early since they ripened in that northern region of early frosts. Packet of 10 seeds, 25 cents.

MUSKMELON, HANSEN'S SIBERIAN No. 2

Found in the same region as the preceding lot. This may prove to be identical with No. 1. More roundish in form. Packet of 10 seeds, 25 cents.

WATERMELON, HANSEN'S SIBERIAN No. 1

Smooth, round dark green, very early watermelon with red sweet flesh. Also from near Semipalatinsk, Siberia. Packet of 10 seeds, 25 cents.

WATERMELON, HANSEN'S SIBERIAN No. 2

A fine watermelon from the dry steppe region forty miles southwest of Semipalatinsk, Siberia. Packet of 10 seeds, 25 cents.

Some New Ornamentals

SIBERIAN ALMOND

Amygdalus nana L. A desirable dwarf ornamental shrub from the dry steppes of Siberia, with abundant bright, rose pink flowers, among the very first to bloom in the spring. Good in front of other shrubs. Raised from our own importation from Siberia. Plants, each 35 cents.

SIBERIAN BUCKTHORN

Raised from seed I gathered from wild plants at Semipalatinsk, Siberia 1913. The plants were in fruit instead of in flower at the time so that the botanical name remains to be determined. Small plants, each 50 cents.

SIBERIAN LAVATERA

Lavatera Thuringiaca. A tall growing perennial flower from the Semipalatinsk steppes. Height 5 to 7 feet. Branching habit; flowers pink, somewhat of the style of single Mallows or Hollyhocks. A Manitoba experimenter gives a favorable report of this flower and wants more seed. There can be no question as to its hardiness in exposed situations. The flowers will be improved by section.

Seed per ounce, 25 cents; Strong plants, each 25 cents.

ROSA RUGOSA

The well known beautiful hardy rose with dark crimson single flowers up to four inches in diameter. Attractive ornamental in autumn and early winter with large bright red fruits, which are used, with seeds removed, for food in its native home. Our own importation, descended from the original introduction from Siberia by the Imperial Botanical Gardens at Petrograd, Russia. The Siberian form of this species is superior to the Japanese form. Small one year plants, each 25 cents.

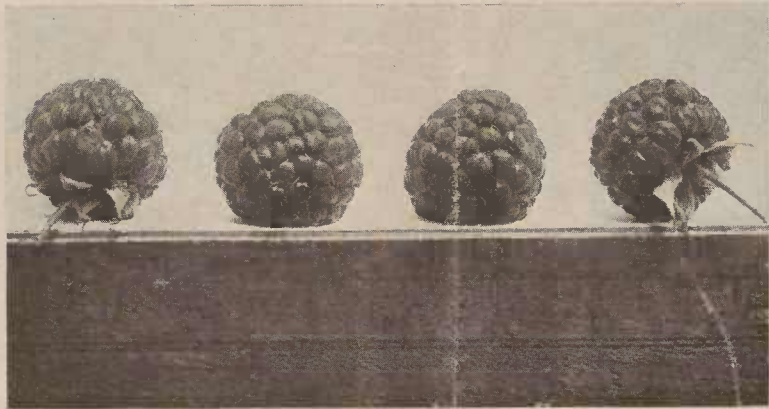
MANITOBA HAZELNUT

Ornamental as well as useful. The need is apparent of a nut-bearing shrub for the open prairie. We now have the wild native hazelnut of Manitoba in the third generation under cultivation. Can spare a few plants at 3 plants for \$1.00.

NEW ULM BLACK WALNUT

The farthest northwestern limit of the native black walnut is probably near New Ulm, Minnesota. This lot of trees began to bear at seven years from the seed. A few two-year trees of the second generation, each 50 cents.

A New Raspberry



OHTA RASPBERRY

Described in Bulletin 159. The Sunbeam was the best of the first 7,000 seedling raspberries, and Ohta was the best out of the following 6,000. Fruit a bright red, of full commercial size, about 16 to the ounce, fairly firm, of good quality. Plants as hardy as any wild raspberry without winter protection.

Plants, 6 for \$1.00.



A plate of Ohta Raspberries (reduced in size)

New Hybrid Plums

The many new plums originated in this Department and sent out for trial are now extensively propagated by many nurserymen. For description, see Bulletins 130 and 159 of this Station. In propagating a set for our new station orchard, we have a few trees on hand in numbers too small to catalog. These are one year old on native plum roots. Price, our assortment, \$5.00 per dozen.

WANETA PLUM

Hybrid of America and Terry. The largest of over 10,000 seedlings. Size 2 inches in diameter. weight 2 ounces, quality delicious. Combines the best points of the Japanese and native plums.

TOKATA PLUM

Hybrid of Chinese apricot and DeSoto plum. Very firm; fragrant, excellent quality.

Price of Waneta and Tokata, one year trees, each 75 cents; \$7.50 per dozen.

PLUMS, TRUE TO SEED SERIES

The first step in my project of breeding plums true to seed to avoid the necessity of building and grafting. T. T. Seed No. 1 is a seedling of Opata. T. T. Seed No. 2 is a seedling of Ezaptan which is of the same pedigree as Sapa. I am not sure this plan will be desirable as the trees would need to be isolated when in bloom, either by tenting the trees or by planting them far from other trees. Some of them will

no doubt revert, others will come true. To complete this work, seedlings should be raised and only those saved that come true. Trees, one year buds on native plum stock, each 75 cents.

NATIVE PLUM SEEDLINGS

We can spare some one year native plum seedlings for grafting and budding, raised from our collection of seedlings, named and unnamed. Will do also for windbreaks.

Size No. 1, \$2.00 per 100; \$12.00 per 1,000.

Size No. 2, \$1.50 per 100; \$8.00 per 1,000.

Size No. 3, \$1.00 per 100; \$6.00 per 1,000.

Some New Apples

I have as yet no candidate for the hardy winter apple that is so much needed for the prairie Northwest, but am still at work on the problem. The following four varieties of apples merit a trial and will also afford a test of the Siberian crab stock, which is really preliminary to work with the new apple seedlings now appearing. The names are all Russian, viz., Ivan, a man's name; Adno, one; Dolgo, long; Sereda, Wednesday.

Price of trees, one year buds on *Pyrus baccata* stock, of Ivan, Sereda, Adno, Hibkee, each 50 cents.

IVAN CRAB APPLE

Offered for the first time. One of our many seedlings crabs. Noteworthy for the calyx segments being absent in the ripe fruit, the same as in the pure Siberian crab (*Pyrus baccata*.) Fully one and three-fourths inch in diameter, roundish oblate, good color, marbled with stripes and orange red; acid.

SEREDA APPLE

Offered for the first time. From seed of the Harry Kaump top-grafted on Oldenburg (Duchess) apple. Resembles Yellow Transparent and of similar very early season, but more regular in form. Yellow, juicy, sprightly subacid.

ADNO APPLE

Offered for the first time. Very handsome, large, red, subacid, productive, late fall apple, received from Russia. Adno is my provisional name until the true name can be determined.

HIBKEE APPLE

This variety, offered for the first time, is a puzzle. A graft-hybrid of Hibernial and Milwaukee; the fruits so far show the flesh and core of Milwaukee and the surface coloring of Hibernial. For my method of grafting these split buds see Bulletin 88, plate 13. Such hybrids are now called periclinal chimera. It is desirable to ascertain whether this proves stable under propagation. The name Hibkee is made up from the names of these two varieties.

DOLGO CRAB

Offered for the first time. At the annual exhibits of this Department at the South Dakota State Fair many have asked about the remarkably long conical, intensely bright red crabs we used for making letters. This is one I brought over from my second trip to Russia in 1897. A vigorous productive tree and so far free from blight. Fruit full of juice, jells easily, makes a rich ruby red jelly of beautiful color and excellent flavor. Scions only; One foot for 50 cents.

Siberian Crabs for Apple Stocks

The Siberian crab roots for the Apple to prevent root-killing and as a semi-dwarf stock.

In Bulletin 65 of this Station I urged the trial of Siberian roots to prevent the root-killing which is often disastrous at the North. The experiments are still in progress. Last fall we seeded fully 50 barrels of various Siberian crab apples and this is now stratified for spring planting. Some seed can be spared for other experimenters.

Seeds in one-half ounce packages of Red Siberian, Yellow Siberian, Dart's Hybrid, Gould Crab, Virginia Crab, Florence Crab, Whitney, Transcendent, mixed *Pyrus baccata*. Price per packet, 50 cents.

Note: There are from 1,000 to 1,500 seeds in one ounce according to the variety.

One year seedlings of Dolgo crab (*P. prunifolia*), 25 for \$1.50.

One year seedlings of mixed *Pyrus baccata*, 100 for \$2.00.

Novelties for Experimenters

Scions are for the expert, not for the inexperienced amateur. The following scions will be cut only as ordered before April 15th. Price, 2 ft. for \$1.00; not less than 2 feet of any one variety sold.

1. *Pyrus ovoidea*, the new name given by the Arnold Arboretum to the Chinese Sand pear illustrated in my Bulletin 159.

2. *Pyrus Ussuriensis*, a wild pear from the Pacific coast section of Siberia. From my 1908 tour to Russia.

3. *Pyrus betulifolia*, a wild ornamental pear, native of China. See Bulletin 159.

4. *Sorbus aucuparia edulis*, an edible-fruited mountain ash from Russia. Fruit is sour, rather than bitter. From my 1906 tour to Russia.

PYRUS TORINGO

A dwarf crab native of Japan. Fruit the size of a pea, flowers white and blush. Grown mostly for ornament, but promising as a dwarf stock. Descended from the original stock imported by Prof. J. L. Budd from Russia. Price, small plants each 25 cents; 10 for \$2.00.

TERMS

Cash with order. Add 25 cents for moss and packing for orders less than \$3.00. This money helps to pay for field labor and enables this Department to carry on the work of Plant Breeding on a larger scale than would otherwise be possible.

PROF. N. E. HANSEN,
State College, Brookings, South Dakota.

LIST OF FREE PREMIUMS

Offered by the South Dakota State Horticultural Society until May 1, 1916

The Legislature has made this Society the Department of Horticulture for South Dakota and has fixed the price of annual membership at \$1.00. The reports are published by the state, but aside from the State official list, the report is sent only to members. This provides a fund to help pay the running expenses of the Society.

The Society wishes to increase its membership. The following premiums are offered until further notice.

Order premium by number from this list and send with \$1.00. One of the annual reports will be sent you at once. One book and one free premium will be sent postpaid for each \$1.00 received. Here is a good chance to get a valuable library of books on South Dakota trees, fruits and gardening.

SPECIAL OFFER UNTIL MAY 1, 1916

The life membership is fixed by the Legislature at ten dollars. It is highly desirable that the Society has more life members as they are our permanent source of strength and influence. Residents of South Dakota who become life members may select Ten Dollars worth of alfalfa plants or plum trees from this circular as a free premium. This includes a set of 12 annual reports now issued and one annual report as issued. Plants and books sent by express at customer's expense.

This offer should appeal to banks, stores and commercial clubs, since they will have a valuable library for local use and a lot of valuable plants for distribution. Order quickly, as this offer is good only as long as the supply lasts.



Field of Hansen's White Siberian Proso, Brookings, S. D., 1914

HANSEN'S WHITE SIBERIAN PROSO

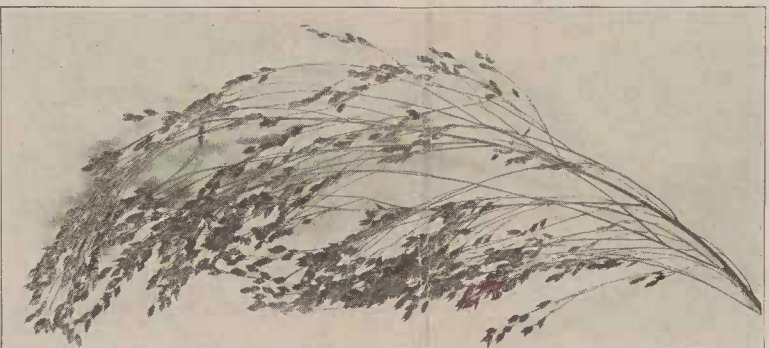
Some will prefer to name this the Hansen White Millet. I found this large white-seeded grain millet among the Kirghiz Tartars near Semipalatinsk, Siberia, in 1913, who grow it extensively as a grain for themselves and their live stock. It is the corner stone of their agriculture in this eight inch rainfall climate, a sure crop in the driest years. For table recipes, see Bulletin 158 of this Station. A minister in Wyoming writes that the ladies of his parish tried with good results eight of these recipes, including pancakes, muffins, sour milk bread, griddle cakes, rolls and Boston brown bread. A farmer at Owanka, Pennington County, Western South Dakota, writes that he raised 300 pounds of grain from the one pound of seed sent him as a free premium last year.

HANSEN'S WHITE SIBERIAN PROSO FROM HAND-PICKED SEED

A special Thank You Premium sent only to anyone in South Dakota for obtaining a new membership, not already on the list.

Special Thank You Premium. One-half pound seed. The past season we grew a small lot from hand-picked seed, the aim being to eliminate for table use the few grains of other colors mixed with the original stock as it came from Siberia. It was such slow and tedious work that this seed is not for sale but will be sent out only as a free "Thank You" premium. One pound of seed sown in the spring means usually four to five bushels in the fall. A grain that will furnish good nutritious food for yourself and family and all your live stock in the driest years on the driest uplands of all our western states. A grain that at a pinch can be prepared for the table with a cheap coffee mill and sieve.

Old annual members may also secure one-half pound for their own renewal.



Hansen's White Siberian Proso

FIFTY DOLLARS IN PRIZES

This Society offers prizes for the best five crops raised in 1916 in South Dakota from one-half pound of Hansen's White Siberian Proso from hand-picked seed.

CONDITIONS:

1. Secure one-half pound of seed of Hansen's White Siberian Proso from hand-picked seed, as offered in preceding paragraph.
2. Sow as you wish, but I recommend sowing with garden drill in 12 inch drills as this permits of cultivation with a wheel hoe or hoe, insuring seed free from weeds.
3. Send in report by September 1st. If your yield is sufficiently high you must provide one half pound for exhibition by this Society at the South Dakota State Fair at Huron. The postage on these prize samples will be paid by this Society.

LIST OF PRIZES

- First prize—\$10 cash and a \$10 life membership in this Society. Total value \$20.00.
- Second prize—\$4 cash, 1 annual membership and 5 back volumes. Total value \$7.50.
- Third prize—\$3 cash, 1 annual membership and 4 back volumes. Total value \$6.00.
- Fourth prize—\$2 cash, 1 annual membership and 2 back volumes. Total value \$4.00.
- Fifth prize—\$1 cash, 1 annual membership and 1 back volume. Total value \$2.50.
- Totals—\$20.00 cash; \$20.00 books.

Free Premiums to Annual Members

All annual members, old or new, may select one as a free premium. Good until May 1, 1916; after that, only No. 15 is offered.

1. One-half pound of Hansen's White Siberian Proso from hand-picked seed.
2. Two packets seed of Hansen's Turkestan Radish.
3. Two plants of Siberian Lavatera.
4. Two packets seed of Siberian Lavatera.
5. Four ounces Hansen's Siberian White Sweet Clover.
6. Ten one year old seedlings of my large fruited Sand Cherry, the Sioux, noted in Bulletin 130. The fruit of some of these will be extra good size and quality and all are good enough for sauce.
7. 50 cuttings of Ural Willow, an excellent tying willow. The branches can be tied in knots if desired. Valuable for basket work; also as a low snow-catcher or hedge which endures severe trimming and attains a height of about eight feet. I brought this from Russia under the name of *Salix purpurea*, variety *Uralensis*, indicating its origin is in the Ural mountains on the western frontier of Siberia.
8. Chrysanthemums. 5 rooted cuttings, assorted, choice double varieties, souvenirs of the annual Chrysanthemum Show of the South Dakota State College of Agriculture and Mechanic Arts.
9. Ten one year old plants of *Caragana arborescens*, the Siberian Pea Tree. A large shrub or small tree, attaining a height of 20 feet. Its bright green leaves in the early spring and wealth of yellow flowers give increasing popularity to this old favorite. One of the very best for snow-catchers, low windbreaks and hedges, and for single specimens on the lawn. The branches resist snow drifts. Perfectly hardy in the most exposed places far north. Raised from seed of our own importation.
10. *Caragana arborescens*. Package of 1,000 seeds (about 1,065 seeds in one ounce.)
11. 100 plants Cossack alfalfa, sent postpaid.
12. 100 plants Semipalatinsk alfalfa, sent postpaid.
13. ½ ounce Semipalatinsk alfalfa seed.
14. 1 ounce Cossack alfalfa and 1 ounce Cherno alfalfa. For all practical purposes these two varieties may be considered one variety, the Cossack.
15. One back volume of the annual report of the Society.

Ten Dollars Cash for Largest Radishes Raised in South Dakota in 1916

CONDITIONS

1. Secure from me seed of Hansen's Turkestan Radish.
2. Sow and cultivate as usual for radishes, sowing somewhat thinly.
3. When of full mature size, ready for the table, weigh best specimens, first removing top. Write me the weight.
4. The prize radishes must be sent me for exhibition at the South Dakota State Fair, September, 1916. The Society pays the postage.

First Prize \$5.00
Second Prize 3.00
Third Prize 2.00

Address,

PROF. N. E. HANSEN,

Secretary South Dakota State Horticultural Society,
Brookings, South Dakota.