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1943 Crop Variety Yields and Recommendations

South Dakota Agricultural Experiment Station

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Agricultural Experiment Station South Dakota State College Brookings, South P. 1943 CROP VARIETY YIELDS January 1944 Jollege Library, College Librarian RECOMMENDATIONS Variety Test Plots Agroncmy Department Pamphlet Nc. 2 630.7

1943 CROP VARIETY YIELDS AND RECOMMENDATIONS

by

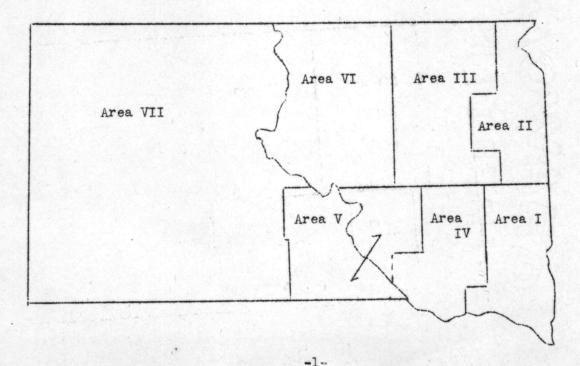
Grafius, J. E., Franzke, C. J., Erickson, E. L., and Hume, A. N.

More than 14,000,000 acres of land in South Dakota are in crops. Each year two-thirds of this acreage is planted to forage crops and small grains. The selecting and growing of adapted varieties can do much to meet the present increased demand for food and feed as a result of the war needs. By the use of adapted and superior varieties growers obtain greater yields and also avoid many risks from disease, dry weather and frost.

One of the most effective methods of obtaining maximum yields and reaching our 1944 production goals is through greater use of desirable varieties. This pamphlet, therefore, has been prepared to help farmers pick out the best variety to grow on their farm. In this pamphlet are summarized the yield results that were obtained from comparable test plots located on experimental and private farms in South Dakota. Although 1943 data for each variety are given, the average of several years results is more dependable and should be used in choosing the best variety. Recommendations are based not only on yield but also earliness, disease resistance, quality and other characters. The yield results and recommendations for each area for the various crops are given on the following pages:

| Crop | Page | Crop | Page |
|--------|------|----------|------|
| Wheat | 2 | Corn | 4 |
| Oats | 2 | Sorghum | 5 |
| Barley | 3 | Soybeans | 6 |
| Flax | 4 | Alfalfa | 7 |

ADAPTATION AREAS OF SOUTH DAKOTA



| ring Wheat Pilot Rival nter Wheat Turkey S D 1- Nebred Minhardi ber Durum Wheat Mindum Kubanka | 44 | | | } so | | rt | of are | eas I, | Neat is grow | |
|---|--|----------|----------------|--|-------------|-------|-------------|-----------|--------------|----------|
| Turkey S D 1 Nebred Minhardi ber Durum Wheat Mindum | | | |) | | | | | | VII. |
| Turkey S D 1 Nebred Minhardi ber Durum Wheat Mindum | | | |) | | | | | | VII. |
| Nebred Minhardi ber Durum Wheat Mindum | | | |) | | | | | | VII. |
| Minhardi ber Durum Wheat Mindum | | | |) | | | | | | |
| Mindum | | | |) Ar | reas II,II | I,I | V,V,VI | , and | VII. | |
| Mindum | | | |) Ar | eas II,II | I,I | v,v,vi | , and | VII. | |
| | | | |) Ar | eas II,II | I,I | v,v,vi | , and | VII. | |
| Kubanka | | | |) 11 | 049 11911 | 4 9 4 | * 9 * 9 * 1 | ., | | |
| | Yield | d of H | | wheel-drynested or | | | | | | |
| | | | ard Red | Sprin | ng Wheat V | ari | eties | | | |
| Variety ; | Bushels 1 | Per Ac | re | ' ' | Variety | 1 | Bushel | ls Per | Acre | |
| | 1943 ; | 4 ¥r. | Ave. | - ; | var 10 vy | 1 | 1943 | ; 4 | Yr. Ave. | |
| Brc | okings | | | 1 | e and the s | | Eı | ureka | · · · · · | |
| Pilot | and the second s | 20 | | | Pilot | | 12 | | 24 | |
| | 22 | 29 28 | | | Rival | | 12 | . N | 24 | |
| Thatcher | 20 | 23 | | | Thatcher | | 12 | | 23 | |
| Ceres | 14 | 20 | | | Ceres | | 12 | | 22 | |
| Regent | 17 | 25 | | | Regent | | 9 | | 22 | |
| | Service A. | | | | | | | | | |
| Hi | ghmore | | | ! | | | <u>V</u> : | ivian | | |
| Pilot | 17 | 16 | and the second | 1 | Pilot | | | | 14 | |
| Rival | 14 | 15 | | | Rival | | | | 17 | |
| Thatcher | 20 | 16 | | 1 | Thatcher | | | | 14 | |
| Ceres | 14 | 16 | | | Ceres | | | | 14 | |
| Regent | 9 | 13 | | ' | | | | Fritten a | New York | 1. S. C. |
| | | | | OAT | S | | | + + 1 | | |
| | | Red | commended | Var | ieties of | Oat | ts | | | |
| Varie | ety | | 1 | ````````````````````````````````````` | Areas in | n wł | nich a | dapted | d | |
| | | | | | | | | | | |
| Vikota Tama | | |] | | | | | | | |
| Boone | | | Areas | I,II | ,III,IV, a | and | north | ern or | ne-third of | ' Area |
| Vicland | | | _} | | | | | | | |
| Miomark | | | | | ne-third d | | | | | |
| Brunker | | | | | | | | | rds of Area | a VI, |

WHEAT

Recommended Varieties of Wheat

| ' Variety '_ | Bushels Per | Acre | : | Variety | Bushels H | Per Acre | |
|-----------------|--|----------|-----|-----------|---------------------------------|------------|---------|
| ariety . | 1943 1 3 | Yr. Ave. | , | Vai 100y | 1943 | 2 Yr. Ave. | e le la |
| | Brookings | | • | | Eureka | | |
| | approximation and in the second system with the second | | 1.1 | 172 Jac 4 | Spatial Contract of Contract of | 50 | |
| Vikota | 57 | 65 | | Vikota | 50 | | |
| Tama | 58 | 64 | 1 | Tama | 43 | 54 | |
| Boone | 60 | 64 | 1 | Boone | 38 | 54 | |
| Vicland | 59 | 63 | 1 | Miomark | 42 | 54 | |
| Richland | 50 | 43 | 1 | Richland | 45 | 46 | |
| Gopher | 35 | 35 | | Gopher | 28 | 40 | |
| Burt | 26 | 32 | | Burt | 29 | | |
| Nakota | 63* | 40* | | Brunker | 37 | | |
| and the second | | | , | Nakota | 49 | 48 | |
| | | | · · | | | | |
| | Highmon | re | 1 | | Vivian | | |
| Brunker | 48 | | 1 | Brunker | 30 | 48 | ' |
| Burt | 40 | 42 | 1 | Burt | 38 | 41 | |
| Richland | 36 | 46 | • | Richland | 19 | 40 | |
| Gopher | 36 | 44 | 1 | Gopher | 23 | 42 | |
| Nakota | 48* | 44* | 1 | Nakota | 24* | 43* | |

Yield of Oat Varieties

* Divided by 0.7 to adjust for hulls

. ...

BARLEY

Recommended Variaties of Barley

| Variety | Areas in which adapted |
|----------------------------|---|
| | I,II,III, eastern part of IV and northern part of VI. |
| Wis. Red. 38} Areas | I, II and eastern part of IV. |
| SpartanAreas TrebiAreas | I,II, but especially in Areas III,IV,V,VI, and VII. |

Yield of Barley Varieties

| 1 Maniatur 1 | Bushels | Per Acre | ; | Variety | Bushels | Per Acre |
|-----------------|---------|------------|---|---------------------|---------|------------|
| Variety ' | 1943 ¦ | 5 Yr. Ave. | | variooy | 1943 | 3 Yr. Ave. |
| | Brooki | ngs | 1 | ale a series of the | Eureka | |
| Odessa | 41 | 45 | 1 | Odessa | 31 | 42 |
| Wisconsin 3 | 8 35 | 45 | 1 | Wisconsin 38 | 39 | |
| Velvet | 21 | 35 | 1 | Spartan | 14 | 41 |
| Spartan | 25 | 41 | • | Trebi | 34 | 43 |
| - | | | : | Dryland | 17 | 35 |
| | Highm | ore | : | | Vivian | |
| Spartan | 12 | 23 | • | Spartan | 8 | 23 |
| Trebi | 34 | 28 | 1 | Trebi | 22 | 37 |
| Odessa | 22 | 25 | 1 | Odessa | 9 | 24 |
| Dryland | 16 | 20 | 1 | Dryland | 8 | 26 |

| Variety | 1 | |
|---------|--|---------|
| | Areas in which adapted | |
| edwing | Areas I,II,III and eastern part of A | rea IV. |
| rystal* | Northern part of Area II. Areas II and III. | |

* Seed is being increased but not available in 1944.

Yield of Flax Variaties at Brookings

| Variety | 1939 | 1940 | , 1941 | 1942 | ; 1943 | 5 Yr. Ave. |
|-----------|------|------|--------|------|--------|------------|
| Redwing | 17 | 15 | 16 | 18 | 15 | 16.2 |
| Bison | 16 | 14 | 16 | 18 | 10 | 14.8 |
| B. Golden | 16 | 18 | 15 | 11 | 15 | 15.0 |
| Biwing | 18 | 14 | 14 | 17 | 13 | 15.2 |
| Redson | 18 | 16 | 16 | 18 | . 15 | 16.6 |
| Koto | 19 | 15 | 16 | 22 | 15 | 17.4 |
| Crystal | | | 15 | 16 | 19 | |

CORN

Recommended Varieties of Corn*

Varieties

Areas in which adapted

Sokota Hybrids

411, 414 and 416A------Areas II and III 412A, 413AA and 415------Areas II, IV and V 417, 412 and 413A------Areas III and VI 413, 418 and 420------Areas II, III and VI

Open Pollinated

| Alta | Dakota White Dent | | | | | |
|-------------|------------------------------------|-------|----|-----|-----|--|
| Eureka | Dakota White Dent Brown Co. Dent) | | | | | |
| Fulton | Northwestern Dent | Areas | VI | and | VII | |
| Silver King | Squaw Corn | | | | | |
| Gehu Flint | Rainbow Flint | 1 | | | | |
| | | | | | | |

For Commercial hybrids see "The 1943 S. Dak. Hybrid Yield Test," South Dakota Agricultural Experiment Station Circular No. 52, 1944.

FLAX

| Growers ! 41.8 Sokota 411 ! 50.1 Sokota 412 ! 49.8 Sokota 412A ! 38.9 Sokota 413 ! 47.8 Sokota 413A ! 49.5 Sokota 413AA ! 59.2 | Ave. 3 39.6 49.3 47.6 9 44.7 3 43.7 | 194-5 | 1943 18.3 13.4 22.6 35.2 24.3 | 1943 12.3 17.2 13.7 17.2 | , 1943 7.5 2.0 10.9 | 1943 15.7 14.0 17.2 |
|--|--|------------------------------|--|--------------------------------------|------------------------------|------------------------------|
| Growers 141.8 Sokota 411 50.1 Sokota 412 49.8 Sokota 412A 38.9 Sokota 413 47.8 Sokota 413A 49.5 Sokota 413AA 59.2 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 14.0 24.0 18.6 28.9 | 13.4 22.6 35.2 | 17.2 13.7 17.2 | 2.0 10.9 | 14.0 |
| Growers ! 41.8 Sokota 411 ! 50.1 Sokota 412 ! 49.8 Sokota 412 ! 38.9 Sokota 413 ! 47.8 Sokota 413A ! 49.5 Sokota 413A ! 59.2 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 14.0 24.0 18.6 28.9 | 13.4 22.6 35.2 | 17.2 13.7 17.2 | 2.0 10.9 | 14.0 |
| Sokota 411 50.1 Sokota 412 49.8 Sokota 412A 38.9 Sokota 413 47.8 Sokota 413A 49.5 Sokota 413AA 59.2 | 49.3 47.6 44.7 43.7 | 24.0 18.6 28.9 | 22.6 35.2 | 13.7 17.2 | 10.9 | |
| Sokota 412 49.8 Sokota 412A 38.9 Sokota 413 47.8 Sokota 413A 49.5 Sokota 413AA 59.2 | 3 47.6 44.7 3 43.7 | 18.6. 28.9 | 35.2 | 17.2 | | 17.2 |
| Sokota 412A ' 38.9 Sokota 413 ' 47.8 Sokota 413A ' 49.5 Sokota 413AA ' 59.2 | 44.7 43.7 | 28.9 | | | | |
| Sokota 412A ' 38.9 Sokota 413 ' 47.8 Sokota 413A ' 49.5 Sokota 413AA ' 59.2 | 3 43.7 | | 24.3 | | 10.0 | 10.6 |
| Sokota 413 47.8 Sokota 413A 49.5 Sokota 413AA 59.2 | 3 43.7 | | N + • V | 15.4 | 7.4 | 27.5 |
| Sokota 413A ' 49.5 Sokota 413AA ' 59.2 | | 06.0 | 24.9 | 21.7 | 6.3 | 19.2 |
| Sokota 413AA ' 59.2 | 5 46.2 | 18.0 | 22.6 | 19.4 | 12.0 | 16.9 |
| | | 25.5 | 21.7 | 19.2 | 10.6 | 28.6 |
| | | 28.3 | 21.7 | 11.4 | 9.7 | 21.5 |
| Sokota 415 ' 46.9 | | 31.5 | 28.0 | 14.0 | 11,4 | 18.0 |
| Sokota 416A 47.5 | | 18.9 | 17.2 | 14.0 | 8.9 | 16.0 |
| Sokota 417 ! 49.2 | | 24.3 | 37.8 | 20.6 | 5.4 | 21.5 |
| Sokota 418 54.3 | | 30.0 | 41.5 | 23.5 | 4.3 | 25.5 |
| 1 | | | | | | |

Corn Yields of Open Pollinated Varieties and Sokota Hybrids

Variety Areas in which adapted

Forage Sorghums

Grain Sorghums

| and the second s | • Bu. Gr | ain Per Acre | 1 | Lbs. Fora | ge Per Acre |
|--|------------------------------|--|----|-----------|-------------|
| Variety | 1943 | 5 Yr. | 1 | 1943 | 5 Yr. |
| 39-30-S (Low prussic | and the summer of the second | | ; | | |
| acic) Dakota Amber | 1 60.8 | 38.0 | 1 | 8288 | 7332 |
| Modoc | 1 46.4 | 32.6 | 1 | 8880 | 6741 |
| Early White Milo | 1 40.0 | 35.7 | | 7200 | 6715 |
| Sooner Milo | 1 41.6 | 35.2 | 1 | 8000 | 6471 |
| Day Milo | \$ 35.0 | 21.4 | • | 5360 | 4594 |
| Early Kalo | 1 59.2 | 30.5 | | 8000 | 6952 |
| Cheyene Kafir | 1 28.8 | 32.4 | 1 | 8800 | 6382 |
| Waconia | 1 22.4 | 22.1 | • | 14640 | 8762 |
| Highland Kafir | 1 36.8 | | | 6080 | |
| Improved Coes | • 54.4 | | 1 | 8240 | |
| Sedan Kafir | 1 54.4 | | | 8240 | |
| Early Hegari | 1 65.6 | | -1 | 8640 | |
| Norkan | 1 36.8 | | | 12960 | |
| woraun | 1 | and the second sec | 1 | | 1 |

Yield of Forage and Grain of Sorghums at Brookings

•

SOYBEANS

Recommended Varieties of Soybeans

| | 1 | |
|--|--------------|------------------------|
| Variety | and a sector | Areas in which adapted |
| | | |
| stant production and and a stant of the stan | | |

| ManchukotaArea | I and southern part of Area II. |
|----------------|---------------------------------|
| MandarinArea | |
| HabaroAreas | s I and II. |
| RichlandSouth | nern one-half of Area I. |

Yield of Soybean Varieties at Brookings

| Variety : | 1942 | 1 | 1943 | , | 2 Yr. Ave. |
|--------------|------|---|------|---|---|
| | | | | | 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - |
| Manchukota ' | 24.2 | | 21.4 | | 22.8 |
| Mandarin | 23.8 | | 22.2 | | 23.0 |
| Habaro | 24.8 | | 24.7 | | 24.7 |
| Richland ' | 16.0 | | 21.9 | | 19.0 |

-6-

ALFALFA

Recommended Varieties of Alfalfa

| Variety | Areas in which adapted |
|------------------------------------|---|
| *Ranger | All areas of the state. Because of their wilt resistance, these varieties are recommended especially for seed production. |
| Cossack Dakota Common Baltic | All areas of the state. |

* Seed being increased but not available in 1944.

| Variety | 1 | 1943- Tons Per Acre | | | | | 1 | 5 Yr. Ave Tons Per Acre | | | | | |
|-----------------|-----|---------------------|-------------|----------------|-----|-------|-----|-------------------------|-----|-----------------|-------------|-------|--|
| | ; (| lst Cutting | 1 1 1 | 2nd Cutting | 1 1 | Total | 1 | lst Cutting | 1 1 | 2nd* Cutting | 1 1 1 | Total | |
| | | | 1 | | 1 | 1 | 4. | | 1 | | 1 | - | |
| Cossack | | 3.0 | 1 | 1.7 | • | 4.7 | , | 2.7 | 1 | 2.1 | 1 | 4.8 | |
| Hardistan | | 2.8 | 1 | 1.6 | 1 | 4.4 | + | 2.6 | 1 | 2.1 | 1 | 4.7 | |
| Ladak | | 3.4 | 1 | 1.5 | 1 | 4.9 | 1 | 2.9 | 1 | 1.7 | 1 | 4.6 | |
| Grimm | | 3.0 | 1 | 1.7 | 1 | 4.7 | | 2.4 | 1 | 2.0 | 1 | 4.4 | |
| Dakota Common | | 2.9 | t | 1.7 | 1 | 4.6 | 1 | 2.4 | 1 | 1.9 | 1 | 4.3 | |
| Baltic | 1 | 2.8 | 1 | 1.7 | 1 | 4.5 | . 1 | 2.4 | 1 | 1.9 | 1 | 4.3 | |
| Hardigan | 1 | 2.6 | 1 | 1.8 | 1 | 4.4 | | 2.3 | 1 | 1.9 | 1 | 4.2 | |
| Kansas Common | 1 | 2.3 | 1 | 1.6 | 1 | 3.9 | | 2.1 | 1 | 1.6 | 1 | 3.7 | |
| Arizona Chilean | 1 | 1.3 | 1 | .9 | 1 | 2.2 | 1 | 1.4 | 1 | .9 | 1 | 2.3 | |
| | | Sec. 1 | 1 | | 1 | | | | + | | | | |

Hay Yields of Alfalfa Varieties at Brookings

* In 1941 the second cutting was left for seed.