CC111 The 1951 Seed Wheat Situation in Southeastern Nebraska

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The 1951 Seed Wheat Situation

In Southeastern Nebraska

Principal Cropping Districts in Nebraska

In the Southeast and East Central cropping districts, most of the 1951 wheat crop is of low quality. Germination tests have also been very low. Similar conditions exist in parts of the Central and South Central cropping districts.
Q. 1. Why was the quality of the wheat so low in east central and southeastern Nebraska?

A. Diseases were the cause. Pink scab, black-chaff (bacterial blight), and root rot all contributed to the production of shriveled, chaffy, low test weight grain.

Q. 2. Will this low quality wheat grow if planted this fall?

A. The first twelve samples of 1951 wheat submitted to the State Seed Laboratory for test from southeast and east central Nebraska had an average germination of 32.5%. The range of germination was between 18 and 54%.

The following early results were obtained on samples of the 1951 crop submitted for certification to the Seed Laboratory of the Nebraska Crop Improvement Association:

Twenty-two samples submitted from the Southeast and East Central cropping districts had an average germination of 65%. The range in germination was between 35 and 91%. Only six of the 22 samples germinated above 80%.

Fourteen samples submitted from the Central and South Central cropping districts had an average germination of 84%. Eight of the 14 samples germinated above 80%.

Fifteen samples submitted from the West and Southwest cropping districts had an average germination of 92%. Fourteen of the 15 samples germinated above 80%.

Q. 3. Will cleaning of the seed to remove dirt, weed seeds, and light chaffy kernels improve germination of this low quality wheat?

A. Seed cleaning will help some, but it alone is not enough. Seed cleaning must be accompanied by seed treatment.

Q. 4. What effect will seed treatment have on the germination and seedling stand?

A. Seed treatment can be expected to increase germination and seedling stand considerably. At the State Seed Laboratory 36 wheat seed samples had an average germination of 43.6%. After seed treatment these same lots of seed germinated 68.9%.

Q. 5. What is the reason for this increase in germination and stand after the seed has been treated?

A. The seed treating material destroys the pink scab, bacterial blight, and other organisms living on the surface of the seed. If these disease organisms were not killed, they would feed upon the germinating seed, likely killing it or causing the production of a weak sprout.

Q. 6. What commercial seed treating materials are satisfactory for treating seed wheat so as to prevent pink scab?

A. New Improved Ceresan, Agrox, and Panogen.
Q. 7. If I have cleaned and treated my seed wheat and the germination is still low, what should I do about the planting rate?

A. If you normally plant five pecks per acre and the seed you have has a germination test of

- 50%* plant 10.00 pecks per acre
- 60% plant 8.33 pecks per acre
- 70% plant 7.14 pecks per acre
- 80% plant 6.25 pecks per acre
- 90% plant 5.55 pecks per acre

If you normally plant four pecks per acre and the seed you have has a germination test of

- 50%* plant 8.00 pecks per acre
- 60% plant 6.67 pecks per acre
- 70% plant 5.71 pecks per acre
- 80% plant 5.00 pecks per acre
- 90% plant 4.44 pecks per acre

*It is not advisable to plant such low germinating seed wheat.

Keep in mind--It may be more economical to buy good seed wheat rather than plant increased amounts of low germinating seed. Two bushels of low quality, low germinating seed is undoubtedly worth more in dollars and cents on the market than a bushel of high quality, high germinating seed.

Q. 8. Will last year's wheat be satisfactory for planting?

A. Yes. In many cases this may be the solution to the seed wheat problem.

Q. 9. If last year's seed is used, what precautions should be taken?

A. 1. Be sure it is tested for germination. During the 1950-51 season much wheat went out of condition while in storage.
   2. Be sure it is free of rye.
   3. Make certain it is free of weed seeds. It is against the law to sell wheat for seed which contains seeds of field bindweed, Canada thistle, Russian knapweed, leafy spurge, and hoary cress (perennial peppergrass).

Q. 10. What wheat varieties are recommended for southeastern and east central Nebraska?

A. Pawnee and Nebred. Following are yield averages for the last 12 years:

<table>
<thead>
<tr>
<th>Variety</th>
<th>Yield in bushels per acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pawnee</td>
<td>35.9</td>
</tr>
<tr>
<td>Cheyenne</td>
<td>31.0</td>
</tr>
<tr>
<td>Comanche</td>
<td>30.8</td>
</tr>
<tr>
<td>Nebred</td>
<td>29.8</td>
</tr>
<tr>
<td>Turkey</td>
<td>27.4</td>
</tr>
</tbody>
</table>

Q. 11. In case Pawnee or Nebred seed is not available, what other varieties are acceptable for planting?

A. Turkey and Iobred for both the East Central and Southeast cropping districts, and in addition Comanche, Tenmarq, and Blackhull for the Southeast district. The following varieties can be expected to perform reasonably well in the East Central district--Minter and Iobard--and in the Southeast district--Kiowa and Wichita.
Q. 12. How about planting varieties such as Red Chief, Blue Jacket, Blackhawk, and Chiefkan?

A. These varieties are undesirable from a milling and baking viewpoint.

Q. 13. Where can I obtain a supply of good seed wheat such as Pawnee or Nebred?

A. In most areas there is some 1950 wheat which may be suitable for planting. If last year's crop is available, use it but be sure it has a 1951 germination test. And clean and treat it.

In the South Central and Southwest cropping districts there is quite a large supply of fairly good quality wheat. Obtain from your county agent a certified seed directory which lists growers of certified varieties. Your local county agent also has a list of other growers who have good quality seed wheat for sale.

Keep Nebraska Wheat Out Front

Do -
1. Plant recommended varieties.
2. Plant pure seed—seed which is free of rye, noxious weeds, and variety mixtures.
3. Test seed for germination.
4. Clean and treat your seed.
5. Use fertilizers where needed.
6. Plant certified seed if possible.
7. Observe "Fly-Free" planting dates.

Don't -
1. Don't buy seed from transient truckers, itinerant seed salesmen, or seed companies which charge exorbitant prices.
2. Don't plant elevator-run grain—there is too big a chance that it will contain rye and weed seeds.
3. Don't plant untried varieties from other states.
4. Don't plant Red Chief, Blue Jacket, Blackhawk, or Chiefkan.