

WESTERN NEBRASKA POTATOES

BOX BUTTE COUNTY HELPS KEEP NEBRASKA'S BREAD BASKET FILLED BY GROWING FOUR TIMES AS MANY POTATOES, IN PROPORTION TO SIZE, AS ANY OTHER COUNTY IN THE STATE

(Written by F. M. Seidell, County Agent, U. S. D. A.)

An article by F. M. Seidell, Box Butte county agricultural agent, on the betterment of our potato crop. Seidell says to better the crop the growers should observe the following:

1. Use pure standard varieties for seed.
2. Select seed of variety type and free from disease.
3. Treat seed potatoes to control and eradicate disease.
4. Use proper cultural methods; practice rotation.
5. Grade for market.
6. Store in disinfected cellars with proper ventilation and temperature.

FOR TREATING SEED POTATOES THE DEPARTMENT OF AGRICULTURAL BOTANY RECOMMENDS THE FOLLOWING:

1. One pint of formalin in 30 gallons of water. Soak potatoes for full two hours, or
2. Four ounces of corrosive sublimate in 30 gallons of water. Soak potatoes for full one and one-half hours.

F. M. Seidell, county agricultural agent, has issued the following statement on the "Improvement of Box Butte Potatoes":

Potatoes are Box Butte county's leading cash crop. The value of her potatoes in 1915 is estimated at \$295,020. In other words, the value of the potato crop was approximately as much as the value of the spring and winter wheat, rye, barley and oat crops combined. Hence the importance of the potato crop and its improvement.

There is a need to improve our potatoes so that the growers can produce them more economically and to

of other variety are removed from planter. In marketing pick out all other varieties.

(2) **Seed Selection.**—Select seed to maintain variety, type, quality, yield, and to control disease. Know the desired shape of the variety you are growing. Potatoes will produce true to type of seed providing other conditions are favorable. Do not plant a potato off in quality such as one with small outgrowths and deep eyes (remember variety type) or a misshapen potato. The constant use of small potatoes will tend to reduce the yield. A potato may be small because of lack of moisture or an

were conducted in 1915 under authority of the Box Butte Farmers' Association and the Department of Agricultural Botany by the county agent on the farms of four co-operators from which the following results were secured. Whole two-ounce seed used in all cases untreated in order to measure effect of disease upon yield. The average yield of marketable potatoes from the seed was: Dry rotted seed, 105.09 bu. per acre; Scabby seed, 132.73 bu. per acre; Clean seed, 205.12 bu. per acre. Dry rotted seed reduced the yield 100.03 bushels of marketable potatoes per acre and scabby seed reduc-

solution is made and used according to the above directions.

FORMIC ALDEHYDE.—Pour one pint of formalin (formalin is a 40 per cent solution of formic aldehyde) in to 30 gallons of water in a barrel or tank. Place potatoes in a gunny sack and keep for 2 hours in the above solution. Spread the treated potatoes out on a canvas or clean floor to dry. When dry, the potatoes should be cut and placed in sacks which have been disinfected.

PRECAUTIONS.—(1) Be certain that your formalin is full strength and the solution made according to the above directions. (2) Treat the potatoes for the full 2 hours. (3) This solution is not poisonous, and treated potatoes may be eaten or fed to stock.

In no case sacrifice strength of solution by making stronger or weaker or by treating longer or shorter time. Potatoes must be in solution about 6 hours before being damaged materially. In treating with corrosive sublimate, potatoes should be relatively free from dirt. Keep solution stirred up. Do not be alarmed because of evaporation.

Either treatment is effective against disease scab, and all dry rot or bacterial wilt reached by seed treatment. Corrosive sublimate is recommended for treating potatoes affected with Stem Rot or Rhizoctonia, which appears as black specks on the exterior of the potato. This disease cuts down production and may reduce stand of potatoes.

In 1915 demonstrations were conducted by the county agent on the farms of the above four co-operators to show the value of seed treatment. Very scabby two-ounce seed was used in all cases. Part treated with corrosive sublimate and part treated with formalin planted beside untreated scabby seed of the same kind and origin. Average: Untreated, 132.73; Formalin, 158.60; Corrosive sublimate, 166.80. Increased yield by formalin, 25.87 bushels, at 35c, equals \$9.05 per acre. Increased yield by corrosive sublimate, 34.07 bushels at 35c, equals \$11.92 per acre.

Stem Rot was prevalent in all potatoes used for seed which probably

that a well-prepared deep seed bed gives on the average the best results. They are thus able to produce potatoes true to type and a good yield of same.

Growers know the type of cultivation generally best adapted to growing potatoes in their sections. They realize that if deep cultivation is practiced it should be done early. A more level type of cultivation is more applicable here than in sections of more rainfall.

In digging, if more dirt is run over the elevator and the digger run deeper less potatoes are cut and damaged. A cut or damaged potato is usually first affected with storage disease. A cut potato is thrown away at the big potato markets whether diseased or not. Running digger deep of course takes more horse power and the only question is whether best to use more horse power and have less damaged potatoes or not. Best potato growers of the section handle their potatoes carefully and state that they are well paid for same.

The experience of the majority of potato growers in this section is that potatoes when planted on land following corn or a cultivated crop have best assurance of a good yield of well shaped smooth potatoes because they have a good seed bed on land free from trash and normally have more moisture conserved.

To the average livestock farmer of this section and considering adaptability to natural condition a crop system that will be fair to all crops and to your potatoes on the basis of 100 acres of farm land exclusive of hay crops is:

Corn 20 acres
Potatoes 20 acres
Small Grain 20 acres
Corn 20 acres
Small Grain 20 acres

Repeating this order your potatoes follow corn and are planted on the same land only one year in five.

(5) **Grading for Market.**—After all, besides supplying home use the aim of the potato grower is to finally sell the potatoes. In order to make the greatest returns with the potato the same as with live stock, there must be a market demand and the article to sell must conform to the market demand. There is a demand for a potato of reasonable size, good in quality and relatively free from disease. The grading for size has been a thing badly neglected in this section. The growers are not always to blame for this condition, for many unscrupulous buyers have practiced buying ungraded potatoes. Every ungraded car of potatoes shipped out cannot help but cast reflection on the potatoes of this section.

According to the Department of Markets, the thing the potato grower must ask himself about the grading of his potatoes is, can he afford to pay himself for grading his potatoes at home or is it cheaper for him to haul off the culls with the good potatoes, pay freight on these culls to the big distributing points, then hire some one to grade and throw away the scabby, cut and odd shaped potatoes and pay the dealers rightly a large insurance for handling this grade of potatoes? All this is paid indirectly by the grower, by the lower price he receives for the potatoes.

(6) **Storage.**—The potato grower who is an average distance from market on the average year makes very little by storing his potatoes. Bad roads, danger in long hauls, small difference in price, shrinkage, freezing, and storage disease losses are things to take into consideration.

However, it is important that some store potatoes so that the market is not flooded at digging time. It is absolutely necessary that the potatoes stored for home seed be stored correctly in order to give strong seed. The potatoes stored for the southern seed trade must be stored correctly (not allowed to heat) so as to maintain their vitality.

Potatoes should be stored in disinfected cellars. The ideal storage temperature is from 33 degrees to 45 degrees. It is impossible to maintain low temperature where large quantities of potatoes are stored without proper ventilation. Potatoes in storage should not be over four feet from a ventilator. That is, ventilators should be eight feet apart. Natural construction of storage cellar may facilitate in ventilation. Low temperature maintains vitality, prevents early sprouting, lowers shrinkage and lessens losses from disease. Allow as small amount of dirt as possible to be stored with the potatoes.

The above outline gives a practical plan for improving Box Butte potatoes and if followed as it is by some growers the potato industry will mean more than ever to Box Butte county.

WHY YOU ARE NERVOUS

The nervous system is the alarm system of the human body. In perfect health we hardly realize that we have a network of nerves, but when health is ebbing, when strength is declining, the same nervous system gives the alarm in headaches, tiredness, dreamful sleep, irritability and unless corrected, leads straight to a breakdown.

To correct nervousness, Scott's Emulsion is exactly what you should take; its rich nutriment gets into the blood and rich blood feeds the tiny nerve-cells while the whole system responds to its refreshing tonic force. It is free from alcohol. Scott & Bowne, Bloomfield, N. J.

Have Pre-judice Against Stoves. Native cooks in Ecuador are professed against stoves, saying the excessive heat produces fever.

Well Children Are Active

If your child is dull, pale, fretful and wants to lie around, the chances are it is suffering from worms. Kick-appee Worm Killer, a pleasant candy confection, liked by all children, is what your child needs. You only give one-half to one lozenge at a time and you get immediate results. Every mother should have a box on hand. 25c at all druggists. Adv.—No 1

BEST WAY TO USE TOBACCO — CHEW IT!

And Best Chewing Tobacco Made is "Old Kentucky" Plug

FRUITY-SWEET AND MELLOW

To get all the wholesome, satisfying taste out of tobacco it must touch your tongue. That means you must chew it. And the most natural form in which chewing tobacco can be made is the plug form.

There's a luscious, fruity flavor in Old Kentucky plug tobacco that sharpens up your appetite.

It's a flavor that not only pleases you through and through, but also comforts your whole system.

Old Kentucky is made of the choicest Burley leaf, in the world's greatest plug factory, and under the most sanitary conditions.

The pure, fresh taste of a chew of Old Kentucky will show you how much real satisfaction there is in chewing.

Get a 10c plug from your dealer today.

WOULD DIVIDE STATE

Residents of Counties Having Irrigation Would Leave Nebraska and Join with Wyoming

Recently agitation has been started in western Nebraska in the counties of Scotts Bluff, Banner, Kimball, Morrill and Cheyenne, where there is much irrigation, to have these counties detached from Nebraska and made a part of Wyoming. The people of these counties have felt that they have not been given fair and proper attention by the Nebraska legislature in the making of laws governing irrigation and feel that they would get better treatment in Wyoming, which has given much attention to irrigation legislation.

Because of the fact that only a comparatively small portion of Nebraska is irrigated country, the Nebraska legislators have in the past given their time to matters which concerned the eastern portion of the state and neglected the important things of interest to the irrigation portion. If the Nebraska legislature desires to prevent further serious dissatisfaction and stop the move proposed in these counties, it should give more attention during the coming session to irrigation matters.

The following dispatch from Cheyenne tells of the movement:

Cheyenne, Wyo.—There is a well-defined movement among citizens of the southwest corner of Nebraska, adjacent to the state of Wyoming, to take steps leading toward the cutting off of a portion of the state and annexing it to Wyoming.

The territory embraced in the move is made up of five counties, Scotts Bluff, Banner, Kimball, Morrill and Cheyenne. They lie within or tributary to the North Platte valley, and are more or less beneficiaries of the federal government's big North Platte irrigation project. They claim that the state of Nebraska is either unable or unwilling to provide satisfactory irrigation and laws, and are anxious to get into position to take advantage of those in Wyoming.

Water legislation is necessary to protect their rights, and repeated efforts have been of no avail.

The territory in question is about 137 miles by 105 miles, and embraces 14,315 square miles, or an area about one-seventh that of Wyoming.

Fair Warning to a Fanatic.

Will the fanatical person who pocketed that bottle of \$2 whisky return it at once to the editor of the Northern News with apologies for attempting to perpetrate a joke? Otherwise there will be criminal proceedings.—From the Athabasca Northern News.

SAGE AND SULPHUR DARKENS GRAY HAIR

It's Grandmother's Recipe to Restore Color, Gloss and Attractiveness.

Almost everyone knows that Sage Tea and Sulphur, properly compounded, brings back the natural color and lustre to the hair when faded, streaked or gray. Years ago the only way to get this mixture was to make it at home, which is messy and troublesome. Nowadays, by asking at any drug store for "Wyeth's Sage and Sulphur Compound," you will get a large bottle of this famous old recipe, improved by the addition of other ingredients, for about 50 cents.

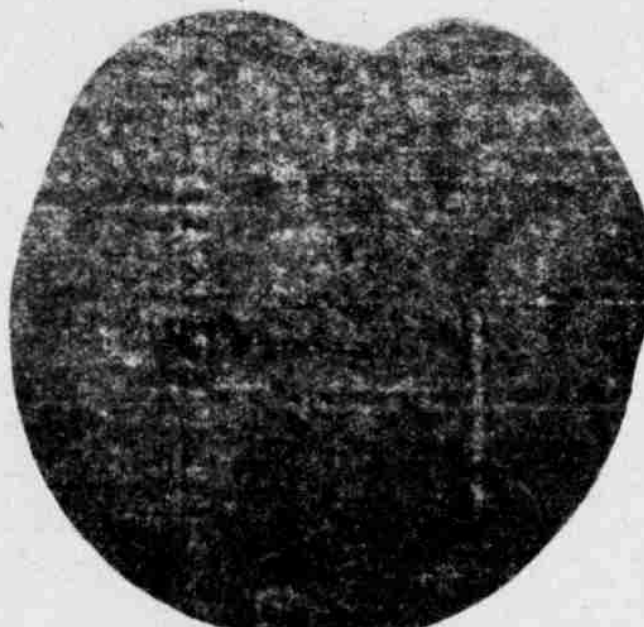
Don't stay gray! Try it! No one can possibly tell that you darkened your hair, as it does it so naturally and evenly. You dampen a sponge or soft brush with it and draw this through your hair, taking one small strand at a time; by morning the gray hair disappears, and after another application or two, your hair becomes beautifully dark, glossy and attractive. Wyeth's Sage and Sulphur Compound is a delightful toilet requisite for those who desire dark hair and a youthful appearance. It is not intended for the cure, mitigation or prevention of disease.



Potato Infected with Rhizoctonia



Potato Infected with Dry Rot



The Pearl Potato

standardize for market so the potatoes will be in demand. This will enable the growers of this section to compete with other sections. It will bring to the grower greater returns and to the consumer greater satisfaction.

The Box Butte Farmers' Association has adopted the following project for the improvement of Box Butte potatoes. This project does not consider seed treatment, etc., alone, but all steps are absolutely necessary in order to make the desired improvement.

(1) **Pure Standard Varieties.**—

Inheritable character. The latter is true too many times to risk planting small potatoes except in rare cases. A small seed piece will produce a small vine consequently a lower yield under normal conditions. Plant nothing less than a one-ounce seed piece and an ounce and one-half to two ounce seed pieces are most desirable. Nothing is gained by clipping off seed end of potato. By hill selection Ohio Station increased the yield of their potatoes about 75 bushels per acre.

About the most important thing in economical production is the discard-

ed the yield 72.39 bushels of marketable potatoes per acre.

(3) **Seed Treatment.**—It is absolutely necessary to treat seed to eradicate potato diseases. Two internal potato diseases have been mentioned controllable largely by seed selection. Scab and Stem Rot or Rhizoctonia are the common external diseases of the potato.

The Department of Agricultural Botany recommends the following treatment for potato diseases:

"Fungicides"
"CORROSIVE SUBLIMATE. Dissolve 4 ounces of corrosive sublim-

accounts for some difference in favor of corrosive sublimate.

It will cost approximately 4 cents per bushel to treat potatoes, allowing for chemicals at present prices and for labor providing no time is wasted while potatoes are being treated. Any plan (providing the directions are followed) that will facilitate in treating is worthy of consideration.

(4) **Proper Cultural Methods.**—Rotation is essential in controlling potato diseases, maintaining yield and fertility. Potatoes should not be planted in the same field oftener than one year to five. This will allow the



Early Ohio Potato



Eureka or Irish Cobbler Potato



Red Triumph Potato

It is important that only those standard adaptable varieties known to be pure be used for seed. The experience of the growers shows that only the early varieties are adaptable. There is a market demand for the early varieties of this section. The Early Ohio is the standard table variety in demand. Bliss or Red Triumphs are in demand for southern seed trade. White Eureka or Cobblers, demand varies, are early and good yielders. Three varieties are enough for any section.

Do not allow seed to mix in storage. In planting one variety after planting another be sure all potatoes

ing of all potatoes affected with dry rot or bacterial wilt. These are internal diseases of the potato. A very scabby potato, however, well shaped, is not a good seed potato. Upon examination of the stem end of potato if a brown discolored area appears that reaches through the potato to about one-eighth inch under skin it is safe to assume that this is the bacterial wilt or black-leg disease. A wet rot may develop and destroy the tuber as result of this infection. Both dry rot organisms and black leg produce characteristic wilting in the field. To show the advantage of using clean seed, demonstrations

ate in 2 gallons of hot water. Add this solution to enough water to make 30 gallons.

Place potatoes in a gunny sack and keep for 1½ hours in the above solution. Spread the treated potatoes out on a canvas or clean floor to dry. When dry, the potatoes should be cut and placed in sacks which have been disinfected.

PRECAUTIONS: (1) To dissolve the corrosive sublimate in hot water use a stone jar or some old pan, as this solution will corrode metal. (2) THIS SOLUTION IS VERY POISONOUS, AND TREATED POTATOES MUST NEVER BE EATEN NOR FED

greater part of the potato disease to have disappeared.

Land free from trash is essential in the production of smooth potatoes. Remember there are two kinds of scab: one disease, and the other a result of insect injuries, insect trouble is largely controllable by proper rotation. A field that has been idle or uncultivated for a short time is more apt to have grubs and other enemies to smooth potatoes. Manure if applied to land should be applied just after digging potatoes. If applied in large quantities, disease scab may live in the soil longer than five years as a result.