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Montana Boys' and Girls' Potato Club

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Montana Boys' and Girls' Potato Club

OBJECTS OF THE POTATO CLUB.

1. To secure the best adapted varieties of potatoes.

2. To improve the better varieties and to increase the acre yield by:

   (a) Field selection of seed.
   (b) Treating the seed for scab.
   (c) Better methods of cultivation.

3. To stimulate the interest of the farm boy and girl in rural life.

AGE.

Ten to eighteen years, inclusive.

REQUIREMENTS.

1. In order to be junior club demonstrator, the member must satisfy the following requirements:

   (a) Plant one-eighth acre of potatoes.
   (b) Use the best adapted seed obtainable.
   (c) Follow the cultural methods given in the potato club bulletin.
   (d) Keep a record of the cost of growing the potatoes and the receipts from sale, or value of the crop if used in the home.
   (e) Write a brief story on the growing of the crop.
   (f) Mail a final report blank and copy of story to State Leader by November 1st.

2. In order to be a senior demonstrator, the club member must satisfy the following requirements:

   (a) Plant at least one-half acre of potatoes.
   (b) Treat the potatoes used for seed for scab.
   (c) Follow cultural methods given in potato club bulletin.
   (d) Practice field selection of seed.
   (e) Keep a record on cost of growing, receipts from sale of seed and market potatoes and write a story on the growing of the crop.

(f) Exhibit twelve potatoes at local, county or state fair.
(g) Mail a final report blank and copy of story to State Leader by November 1st.

ENROLLMENTS

Each member must sign an application card or shall give his name to his or her local leader before June 1st.

FULL MEMBERSHIP CARD

When the club member receives his record book and potato club bulletin, he will also receive a Full Membership Card. This card shall be filled out completely and signed and mailed when the club member has finished planting the potatoes.

BASIS OF AWARDS.

In competition for prizes at local, county and state fairs, the awards shall be made solely upon the individual merit of the exhibit of twelve potatoes without regard to the financial record. But where the state championship for which scholarships and special prizes may be awarded, the following basis of awards shall be taken into consideration.

Best exhibit of twelve potatoes	40 points
Lowest cost of production	20 points
Highest yield	30 points
Best kept record and story	10 points

SUGGESTIONS FOR POTATO CLUB MEMBERS

POTATO SOILS.

It is well to remember that the quality of potatoes is determined as much, if not more, by the soil in which they are grown as by any other factor. In other words, with a poor potato soil, it is almost impossible to grow potatoes that are smooth and uniform in shape and size, or potatoes with good cooking qualities. Of course, potatoes will grow on almost any soil, but if you have a chance and want to grow good potatoes, select that which is rather sandy. Choose a soil that can be worked soon after a rain without sticking to tools. If the soil on the farm is all black and heavy, a good application of well-rotted manure will improve it. Fresh manure should not be used upon land which is to be planted at once to potatoes, for it is thought to have a tendency to increase the amount

of scab. If manure is used, it should be applied at least one year before potatoes are to be planted.

The best potato land is newly-broken alfalfa or clover sod. If such land is available, you need not use manure. Do not attempt to grow potatoes on the same land two years in succession. Potatoes do well on land previously cropped with garden or field peas.

PREPARATION OF LAND.

It is a good plan to plow alfalfa or clover sod in the fall. In the spring, work it up well with the disk, and replow just before planting. After this spring plowing, the land needs about one double-discing and one harrowing with a spike-tooth harrow. Disk and harrow before the soil has a chance to dry after the plowing, Old land may be plowed in the spring just before planting, a double-disking and harrowing completing the preparation. Heavy land may be benefited by both fall and spring plowing, while rather sandy soil plowed in the fall may not need spring plowing. On the dry farm, especially where the soil is from medium to light, fall plowing gives better results than spring plowing.

VARIETIES.

Some of the best early varieties are Early Ohio, Early Triumph, Irish Cobbler, and Early Rose. Burbank (Russet and White), Rural New Yorker, Green Mountain and Pearl are good late varieties. The Russet Burbank is very resistant to disease and is also of high quality.

SELECTING SEED

In selecting potato seed, pick out the tubers with strong, medium deep eyes, and those of the typical shape of the variety. The typical shape would be the type most commonly produced by the variety you are growing. Do not select those that are pointed at the seed end. A pointed end generally indicates that the seed is running out. In most varieties, it is best to choose tubers that are flat rather than round, and short rather than long.

In many varieties, ideal tubers have the cluster of eyes on one side rather than right at the seed end of the potato. One should always select seed potatoes at digging time. As the potatoes lie in the field after digging, go over the rows first and pick out the very best potatoes for seed. One can get a much better selection in this

way. You should select from sixty to seventy-five pounds of seed to plant an eighth of an acre of potatoes.

TREATING SEED.

If there is any scab, soak the uncut seed for two hours in a solution made up of one-fourth of a pint, or one-fourth of a pound of forty per cent formalin, and seven and one-half gallons of water. This is enough for seventy-five pounds of seed. Put in a barrel or tub, drop the potatoes in either loose or in the sack. After two hours take out and spread them about to dry. Do not put them back in the same or other dirty sacks unless the sacks are also treated.

STARTING SEED.

Potato seed should be stored in a cool cellar, where it will keep until at least the first of May without growing any sprouts. If you have such storage and the potatoes are dormant, they should be started before planting time. Such seed germinates quickly when planted, and the young plants are less likely to be injured by disease. Better stands are secured, and the crop is ten days earlier.

To start the potatoes, lay them out in a thin layer on the barn floor, granary floor, or any place where they will get some heat and plenty of light, but will not freeze. The sprouts will start, but they will be short and stubby and will not be knocked off in planting. It will take three or four weeks to start dormant seed. Potatoes that have grown long white sprouts in the cellar should have these rubbed off and then be started like dormant seed.

CUTTING SEED.

Under most conditions it is best to cut potatoes in about two-ounce pieces. On the dry farm it may be advisable to use a little larged seed piece. Each piece should have at least one eye. It is a good plan to cut the seed from end to end, so the cluster of eyes at the seed end will be divided. A half-pound potato should be cut into four pieces lengthwise, and a potato weighing a pound should be cut into four pieces lengthwise, and then cut crosswise to make eight pieces. Never cut the seed until you are ready to plant it.

PLANTING.

Early potatoes may be planted as soon as the ground can be prepared, but they should not be planted so early as to have the

plants frosted. If experience shows that you may expect frost up until the middle of May, do not plant before May 1st. Potatoes that are to be irrigated should be planted in rows at least three feet and nine inches apart with the seed pieces dropped one in a place and fifteen inches apart. The seed piece should not be planted any deeper than necessary to get into moist soil. Potatoes to be grown without irrigation should be planted at least four inches below the surface of the ground. They can be planted in furrows from four to six inches deep and covered with only two or three inches of soil. The furrow can be filled completely after the plants are up. The rows need not be over three feet apart, and the plants should be eighteen inches apart in the row.

CULTIVATION.

Irrigated potatoes should be given deep cultivation and each time a little more dirt should be thrown up over the ridge. At the time the first water is applied, these ridges should be at least ten inches high. If the cultivator available will not ridge up this high, the final ridging may be done with a plow or a lister. Non-irrigated potatoes should be given level cultivation. This should not be deep, and should be frequent enough to keep down the weeds and maintain a surface mulch. If the potatoes form near the surface of the ground, the plants may be slightly ridged at the last cultivation. After the vines cover the ground, cultivation is not necessary.

IRRIGATION.

If possible, do not irrigate until the potatoes are set (this will be about blooming time), but the plants should not be allowed to wilt. In many varieties, tubers which have started to ripen for lack of moisture, will grow knobs when water is applied. Plan to irrigate early enough to avoid any check in growth. Run a small stream of water in the bottom of each furrow, and run it long enough to moisten the ground well. In many parts of the state one irrigation will be sufficient. Remember that late irrigation retards ripening and produces potatoes with poor cooking qualities. Where frosts may be expected early in September, late potatoes should not be irrigated after the first of August.

DIGGING.

Potatoes should be carefully dug to avoid any injury. Bruised or cut tubers are unfit for exhibition or storage. It is best to dig

small plots with a fork, keeping well away from the vine to avoid cutting any of the tubers. Pick up the potatoes as soon as dry, and always handle them carefully.

STORAGE

Potatoes are best stored in cool cellars. They may be stored either in sacks or bins, and these, as well as the cellar, should be clean. It is well to leave the cellar open at first so the potatoes will cure, or dry out. The best temperature for storage is from thirty-two to thirty-five degrees.

THE POTATO BUG.

This is really the only insect that troubles potato vines in Montana. The old beetles appear almost as soon as the vines are up in the spring. They may be picked off by hand, and this, if done soon enough, may save spraying for the young bugs which appear later. The young often appear in such numbers as to strip all the leaves off the vines. When they begin to hatch from the clusters of yellow eggs which are usually laid on the under side of the leaves, dust the plants with Paris green. At first these young are very small, soft-bodied insects which appear almost black in color. They grow very fast, and later they are more red than black. Their appetites grow even faster than they do, so do not neglect the dusting too long. The Paris green can best be applied with a powder-sprayer, but itcan be sifted on from a cheesecloth bag. If the poison is mixed with about four times its bulk of flour, it will go farther. Dust the plants well. A pound of Paris green should be ample to dust your one-eighth acre plot twice. Remember that this material is very poisonous and should not be left in reach of small children or animals.

SELECTING AND PREPARING POTATOES FOR EXHIBITION.

It is a fact that those who grow the best potatoes do not always win the prizes, and the reason for this is that they do not exhibit their best potatoes. First, select potatoes of medium, rather than large size. In most varieties, those weighing a pound are large enough. Select those of uniform size and shape. One small or one large potato, or one of poor shape, spoils the whole exhibit. Select tubers with shallow eyes and those free from disease or injuries of any kind. In other words, if you are exhibiting twelve potatoes, have them all the same size, the same shape, and all free from blem-

ishes. Gather them carefully, wash them carefully (a sponge is better than a brush), dry them, wrap each in paper and keep in a cool, dark place until them are placed on exhibit.

JUDGING POTATOES.

Score Card for Commercial Potatoes	Points
Uniforimty	20
Freedom from Blemishes and diseases	20
Form	15
Size	15
Quality of flesh	10
Depth and frequency of eyes	10
Color and texture of skin	10

The above score card may be found useful in calling to mind the important points to be considered in potato judging, or it may be used in scoring exhibits where competition is keen.

Uniformity—An exhibit of potatoes meriting a perfect score on uniformity should be uniform in size, shape, color and depth of eyes.

Blemishes—Broken skin due to rough handling or washing would be considered under blemishes. There is a difference of opinion in regard to washing, but it is doubtful if careful washing should ever be considered as reducing the quality of exhibition potatoes. Some judges disqualify exhibits containing diseased specimens. The exhibition of diseased specimens should be discouraged, but judges will need to use some discretion upon this point. Heavy cutting in the score will usually be found more satisfactory than elimination.

Form—The most desirable commercial forms are rather flat oval. The Rural New Yorker typifies this ideal form. Length is a good characteristic when the ends are full and rounded.

Size—Ideal size will vary with varieties and with judges. Ten to twelve-ounce specimens should be considered about right, although it is doubtful if specimens of late potatoes weighing a pound should be scored down. Size indicates vigor of stock.

Quality of Flesh—This is a point overlooked in judging except in keen competition. The amateur judge can not always pick quality by appearance of the flesh. The flesh should be white and uniform in color.

Depty and Frequency of Eyes—(Eyes should be medium shallow for the variety. The market prefers shallow-eyed types.) Ex-

tremely shallow eyes sometimes indicates weakness. The eyes may be shallow but they should be conspicious or prominent. The fewer the eyes the more desirable the type.

Color and Teture of Skin—The market prefers a white potato in most cases. Specimens with a russeted or slightly russeted skin are usually in demand. Many think that this indicates quality and such specimens certainly stand handling better.

RECORDS.

The record book which is sent the club member becomes his property and he should take pride in keeping it up to date and in a business-like way. It should always be ready for inspection by local leader, county leader, or county agent.

Final report blanks asking for the following information will be mailed each club member in the autumn. No club member will be given credit for finishing the club project until this report is in the State Leader's office, Bozeman, Montana.

1. Name..... Address..... County..... Age.....
2. Size of potato plot..... Variety of potatoes grown.....
3. What was the cost of your seed?.....
4. What was the cost of your work at 10 cents per hour? $.....
5. What was the cost of horse labor at 15 cents per hour? $.....
6. What was the amount of any other expenses? $.....
7. Add the items under 3, 4, 5, and 6, and you will have your TOTAL COST $.....
8. How many bushels of potatoes did you raise? .....Bushels
9. What is the value of your seed potatoes? $.....
10. What is the value of your market potatoes? $.....
11. Add items 9 and 10 and you will have the TOTAL VALUE of your potatoes.

$.....

12. Subtract item 10 from item 11 and you will have your NET PROFIT.

$.....

FREE SCHOLARSHIPS.

To further Boys' and Girls' Club work in Montana, the State Board of Education is offering the following scholarships at any of the four institutions comprising the University of Montana: To the county winner in each Club, a one-year scholarship; to the State winner in each contest, a four-year scholarship; to the winner of the second and third places in the State contest, a three and two-year scholarship, respectively.

REQUIREMENTS OF STANDARD POTATO CLUB.

1. A standard club shall have a membership of at least five working on the potato project.

2. There shall be a local leader in charge during the Club year.

3. There shall be a local club organization with the necessary officers and duties. (Pres., V. Pres., Sec.-Treas.)

4. There shall be a definite club program of work.

5. There shall be at least six regular club meetings during the club year. The secretary shall be required to keep definite records of these meetings and also of the progress of each member.

6. A local exhibit shall be held annually.

7. There shall be a demonstration team which must give at least one public demonstration in the community.

8. At least 60% of the members must complete the project and file a final report with the State Club Leader.

9. A judging team shall be chosen by competition between the members.

10. An achievement day shall be held during the club year.

11. The club shall hold a membership in the farm bureau or other club organization in the county. (In some cases this may not be possible).

When the first four requirements have been met the local leader or secretary of club should write to State Club Leader for an application card. If the application is approved, a standard club charter will be issued. When all requirements have been met a National Seal of Achievement will be awarded.

