



POTATO

WELCOME

Welcome to the 4-H Potato Project! Please read through this Guide carefully, as it contains information and suggestions that are important for your project. **4-H leaders can obtain a Leader Project Guide and other resources from the PEI 4-H Office.** Hopefully you, as a member, will “Learn to do by Doing” through hands-on activities that will encourage learning and enjoyment. If you have any questions, contact your District 4-H Officer or your 4-H project leader.

4-H YEAR COMPLETION

You complete a project by:

- completing the project Achievement Day requirements
- completing a communication project
- completing a community project
- completing an agriculture awareness project
- taking part in Achievement Day

You must complete all of the listed aspects in order to show at Fairs and Exhibitions.



ACHIEVEMENT DAY REQUIREMENTS

(Rural Youth Fair is the Achievement Day for Potato Project)

Judging Class	10
Attend Tour	20
Potato Poster	20
Potatoes (2 varieties)	<u>50</u>
	100 Marks

EXHIBITION REQUIREMENT

Potato Poster

NOTE: This project differs from other projects in that it is not completed at your Club Achievement Day because your potatoes will not be ready until early September. You will be presented with your 4-H certificates and ribbons at the Rural Youth Fair.

In this potato project you are required to display a poster at your Club's Achievement Day and then display two varieties of potatoes, poster and judging class card at this fall's Rural Youth Fair in September.



Ages for 4-H members as of January 1st of the 4-H year:

Junior: 9-11 years
 Intermediate: 12-14 years
 Senior: 15-21 years

Check out the PEI 4-H Web Site
www.pei4h.pe.ca

HELPFUL RESOURCES!

www.peipotato.org

www.peipotatomuseum.com

www.agr.gc.ca

www.cavendishfarms.com

www.agr.gc.ca/cal/epub/1421e/1421_cover_e.html

www.littlepotatoes.com

A variety of books are available at the PEI 4-H Office which can be borrowed for a two week loan period. To book these, call 368-4833 or drop by the PEI 4-H Office at 40 Enman Crescent, Charlottetown.



WHAT IS A POTATO?

A tuber or underground stem with stored food (i.e. starch and sugars). Wild potatoes are perennial plants (come back year after year). Cultivated potatoes are annuals (need to be planted each year).

TOUR

(Achievement Day Requirement)

One of the requirements for this project is a tour. Your leader will arrange the tour for your project group. It may be one of the following, but is not limited to these suggestions.

1. A French fry manufacturer (i.e. Cavendish Farms)
2. The Soil and Feed or Water Testing Lab in Charlottetown (368-5628)
3. A potato farm operation

BE A GOOD SPORT!

In the spirit of learn to do by doing, all those involved in 4-H are encouraged to practice good sportsmanship, use common sense at all 4-H activities, and the work in any 4-H project should be the member's own work.

JUDGING CLASS

(Achievement Day Requirement)

Your leader will prepare four plates of one variety of potatoes (3 potatoes/plate). You and your other potato project members will judge the class.

When judging this class, be sure to watch for the following:

- Uniform size and shape
- Shape that is characteristic of the variety
- Dirt and soil
- Signs of disease, bruises, sunburn and insect injury
- Cuts

(Your leader will review the things to look for and how to identify things like sunburn.)

Once you have decided upon your placings, mark them on the judging card as well as your comments on why you placed the class the way you did.

The official judge (your leader or someone else familiar with judging potatoes) will then mark your placings.

Be sure to have the judge give his/her official reasons, so that you will know "how to" improve your judging for another time.

POTATO POSTER

(Achievement Day Requirement)

This project requires you complete a poster. Create a poster about potatoes and use your imagination to choose a topic. Your topic might be about information covered in this project...

- Potato varieties
- History of the Potato
- Growth Cycle of the Potato
- Profile of a day in the life of a Potato farmer
- Profile of the life of a potato, from being a seed to being a French fry at McDonalds

Or you may want to do some interesting research and see what you can find out about the following...

- Precision farming and potato production
- Potato pests (the different kinds)
- French Fry processing (how it is done)
- Common Potato diseases
- Potato Dehydration
- Integrated Pest Management (what it means)

Be sure to

- * Use the "4-H Poster Book" as a guide
- * Use a whole sheet of Bristol board
- * Use quality, not quantity information
- * Use your imagination, drawings or pictures, and creativity
- * Write your name, club, and age on the **back**, not front of the poster

Selection and Preparation of Potato Exhibits

Before choosing specimens for a show, you must know what to look for. One of the best guides is the official description of each potato - http://www.agr.gc.ca/cal/epub/1421e/1421-0001_e.html.

Selection

- During the growing season, select and stake the best potato plants. They are the ones most likely to produce the best tubers. The best time to choose prize-winning potatoes is during the harvest when the soil is dry. The tubers are mature then, and the outdoor light is better than artificial light in a storage area.
- After digging, leave the potatoes in the rows to dry for a few hours, to avoid skin peeling (feathering) or breaking problems. But don't let an overnight frost damage them.
- Pick out three or four times as many potatoes in the field as you will need for your exhibit. This will allow for discards. Bring them indoors in a newspaper-padded box or cardboard container, handling them as gently as eggs to avoid bruising.
- All potatoes should match the variety description. When doubtful about size, weigh them on a scale that registers ounces. Measure the length, width and thickness of the potatoes in inches and discard any that are out of proportion for the particular variety.
- Reject potatoes with pointed ends because this may be a disease symptom. Skin color should be normal for the variety; reject unusually dark or light potatoes. Select the ideal potato from the group, then match it to the remainder to form your exhibit and include two spares.

Grooming

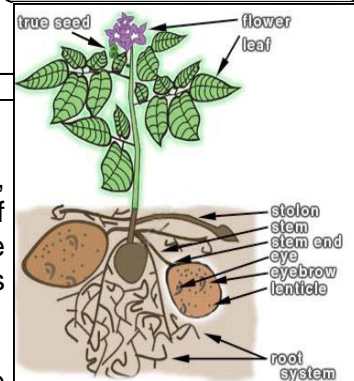
- Do not wash potatoes. Remove dirt and dust from the surface with a fine soft-bristled brush, taking care not to damage the skin. For a final finish before show day, rub the potatoes gently with lamb's wool or a woolen sock to impart a fine luster.

Exhibiting and Shipping

- Each potato exhibit should include three potatoes for each variety. Place each variety on a separate tin foil or paper pie plate.
- Wrap each potato in a sheet of clean, soft wrapping paper or tissue. This paper should not have any colored printing on it, because potatoes are living organisms that respire and give off gases and moisture that could mix with printer's ink and discolor the skin. Wrapping potatoes helps to prevent injuries and shields them from light, which causes greening.

Source: Agriculture and Agri-Food Canada
Departmental Electronic Publications
http://www.agr.gc.ca/cal/epub/1421e/1421-0001_e.html

The Potato Plant



No Surprise PEI Nicknamed Spud Island

PEI farmers have been producing potatoes for the world since 1790. Today, potatoes are PEI's primary cash crop. Potatoes account for more than one-third of the total farm cash receipts in the province, which is more than the combined value of all other Island crops. Prince Edward Island enjoys the reputation as Canada's leading potato province, responsible for almost one-third of Canadian production.

Prince Edward Island potatoes are grown for three specific markets; seed, table potatoes, and processing. Seed potatoes are sold to commercial potato growers and home gardeners to produce next year's crop; table potatoes, in the retail and food service sectors; and processing potatoes are manufactured into French fries, potato chips, and other processed potato products.

Almost 50% of the potatoes grown on PEI are used by the processing industry. Most are processed into frozen products, which are available across Canada and are exported to close to 30 countries around the world.

In addition to the important Canadian market, seed and table potatoes are shipped to over 20 countries annually. Some customer countries are Venezuela, Italy, Ukraine, Portugal and Thailand. While markets vary from year to year, over the past few years about 50% of PEI table potatoes have been sold in Canada, 20% have been marketed in the United States and approximately 30% are sold to other countries.

Source: www.peipotato.org

TABLE POTATO JUDGING STANDARDS

Whether you are selecting potatoes for the Rural Youth Fair or storage, quality is the first thing to consider. While there are some differences in preparing potatoes for storage or exhibition, this rule always applies:

SELECT THE VERY BEST!

Factors that promote the appeal and sale of potatoes are the most important in judging table potatoes. These include appearance, maturity, and freedom from disease and injury. Trueness to variety is a secondary factor in table potatoes, but all samples in the exhibit must be of the same variety.

Freedom from disease - Potatoes should be free from all disease. Diseases are wasteful and detract from appearance.

Freedom from mechanical, insect and other injuries - Samples should not show any injury resulting from harvesting, handling, quack grass, insects, slugs, sunburn, frost injury, cuts, fertilizer injury, sprouts, second growth and growth cracks.

Size - In general, large potatoes weighing about 9 ounces are selected for table-stock classes.

Uniformity - This means uniform in size, shape, color of skin, and placement of eyes and eyebrows. An eye is the natural depression from which a sprout will grow to form a stalk. The eyebrow is a line just above the eye and it resembles a human eyebrow. Bulgy eyebrows are not typical of any variety and should be rejected.

Shape - Shape should be typical for the variety as outlined in the description. As a general rule, potatoes are classified as round, oblong, or long, but the Cherokee variety has an elliptical shape and is somewhat flattened on one side near the stem end. The shoulders at the ends of a potato should not be 'pinched'. Potatoes that have started second growth or slight knobs should be discarded.

Quality and texture of flesh, and maturity - In North America most varieties have white flesh. Some have rose or red splashes that are a distinct characteristic of the variety. Blue potatoes have blue or purplish splashes in white flesh. The flesh should be firm, solid, close-grained and true to color for the variety.

Potatoes are fully developed when the tops die naturally. A mature potato tuber has a firm skin and solid flesh. Immaturity in potatoes is shown by feathering, or peeling of the skin. This defect is usually accompanied by scalds (brownish discolorations), which are really injuries to the exposed flesh. Potatoes possess the best table quality when they are well matured.

Potatoes are also classified as early, mid-season or late, to describe their maturity. There are minor modifications of these terms.

General appearance - samples should have a bright, clean, smooth, attractive appearance. Care should be taken that the natural color and bloom of the skin are not destroyed by excessive rubbing or brushing. "Bright" describes potatoes that are free from dirt, or other foreign matter, damage or discoloration from any cause.

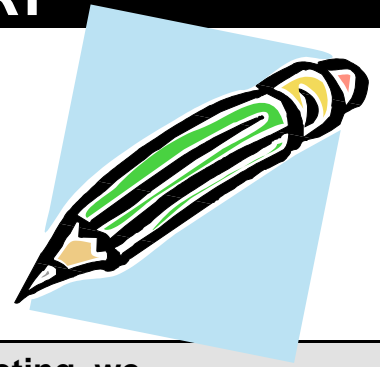
Sunburned tubers (those greened by light) should be discarded in favor of those with normal coloring. Potatoes with enlarged lenticels and other skin defects should not be shown.

Purity of variety - The tuber characteristics of the variety should be true in all respects. Some points to consider are: shape, size, color of skin, color of flesh and eyes, depth and placement of eyes, prominence and correctness of eyebrows, netting, smoothness and any other feature listed in the official description.

Source: Agriculture and Agri-Food Canada
Departmental Electronic Publications
http://www.agr.gc.ca/cal/epub/1421e/1421-0002_e.html

PROJECT MEETINGS DIARY

Most projects will require at least six to eight project meetings to complete the project.



Meeting Date	Location	Time	At this meeting, we...

Community and Agriculture Awareness Projects

COMMUNITY PROJECT

Each year you are encouraged to provide a service to your community as a 4-H member. This introduces you to the responsibilities of citizenship. You must participate in your club's plan for a community project and you should have a role to play. Describe your involvement with your club's community project this year.



Our Community Project was _____

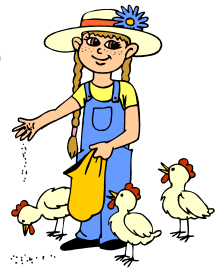
I helped by _____

It was beneficial because _____

I learned _____

AGRICULTURE AWARENESS PROJECT

Agriculture is one of PEI's main industries. You are expected to participate with your club to complete a project (or provide a service) which helps your club or others become aware of the importance of agriculture in our lives. As in the community project, you should actively participate.



Our Agricultural Awareness Project was _____

I helped by _____

It was beneficial because _____

I learned _____