

**Plant Masters 4-H Club
Chesterland, Ohio
Fall 2005 to Summer's End 2006
Plant Project**

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Our new Plant Masters' year is beginning. This year we will focus on learning as much as we can about the potato. The potato is a member of the Solanaceae. We will also learn about several of the other members in this family. Many of us are very familiar with members of the Solanaceae, we eat potatoes as well as tomatoes, peppers, and eggplant. Many of us have petunias or flowering tobacco, nicotiana, in our gardens. Some of us are familiar with troublesome weeds like jimsonweed and climbing nightshade.

Over the next year we will:

1. Learn to identify many of the members of the Solanaceae by name (scientific names too) and why the Solanaceae is an important family.
2. Learn to identify the different parts (morphology) of the potato plant and some of the other Solanaceae. We will also study some plant anatomy.
3. Study the history of the potato and other members of the family and how they traveled from their place of origin all around the world.
4. Learn to identify the diseases of the Solanaceae, especially potato.
5. Learn to identify the insect pests of the Solanaceae, especially potato.
6. Learn ways to use the members of the Solanaceae, especially potato.
7. Study how to grow members of the Solanaceae, especially potato.
8. Study where and how potatoes are grown on a large scale.

Each member of the Plant Masters Club is expected to do the following over the next year, fall 2005 to end of the summer 2006:

1. Complete the Potato (Solanaceae) Project Book. Over the next year, you will receive new chapters of the Project Book at different meetings. Please make sure that you complete the work in each chapter. Most chapters will involve some reading, answering questions, and a small project.

Make sure you do everything in bold print. Each member is expected to answer all the questions and do one of the projects at the end of each lesson. Some lessons will have a laboratory at the end of the lesson. All members are expected to complete the laboratory. Parts of each lesson are underlined. Younger members can ignore these parts, including questions which are underlined, although younger members are welcome to give it a try. WORDS PRINTED IN ALL CAPITAL LETTERS may be new vocabulary words. These are included at the end of each lesson in a GLOSSARY.

Some parts are within brackets. This designates subjects covered in previous years. New members can ignore these items.

2. We will spend most of our time on the potato. But we need to learn about other members of the Solanaceae too. To achieve this, each member will prepare a report about one of the other members of the Solanaceae. In Lesson Two we will look at the different members of the family and you will choose the species for your report. You will be expected to make a presentation at one of our meetings.
3. Participate in Interview Judging sponsored by Geauga County 4-H. This is usually in July. You can prepare for Interview Judging by studying the review lessons at the county 4-H WEB site, www.geauga4h.org
4. Try to grow one (older members two different) members of the Solanaceae family. Everyone should try to grow a type of potato. Many people have never seen a potato plant yet potatoes are really an important part of our everyday lives.
5. Enter something you grew, preferably a potato, in the Geauga County Fair.

Please remember, you are welcome to work on other projects and take them to fair through the Plant Masters Club.

Checklist for Required Activities

Completed	Date
Lesson One - Fruit	_____
Lesson Two - Genera and Species	_____
Lesson Three - Species <i>Solanum tuberosum</i>	_____
Lesson Four - History	_____
Lesson Five - Seed and Seedling	_____
Lesson Six - Growing the Solanaceae	_____
Lesson Seven - Insect Pests	_____
Lesson Eight - Diseases	_____
Lesson Nine - Stems and Leaves	_____
Lesson Ten - Flowers	_____
Lesson Eleven – Agronomic Aspects	_____

Planted	Name of Species 1	_____	_____
	Name of Species 2	_____	_____

Interview Judging _____

Presented Report _____

Entered in the fair Name of Species _____