

Kalamazoo County 4-H

Horticulture Project Guidelines

Project Superintendents: N/A

Project Social Media: N/A

Project Objectives & Life Skills*

- Learn what plants do, how they grow and how to identify different types of plants.
- Learn how to identify and manage plant pests and diseases while caring for our environment and the cause and effect of using harsh chemicals in regard to the plant, fruit, consumer and ecosystem.
- Understand the function of each plant part, how to propagate plants and how to divide perennials.
- Head
 - Record keeping
 - Planning/organizing
 - Goal setting
 - Problem solving
- Heart
 - Nurturing relationships
 - Sharing
 - Accepting differences
 - Communication
- Hands
 - Responsible citizenship
 - Marketable skills
 - Self-motivation
 - Contributions to group efforts
- Health
 - Healthy lifestyle choices
 - Stress management
 - Disease prevention
 - Personal safety

**Note these life skills are just some examples of what 4-H members will learn in this project*

Additional Resources:

[Container Gardening with Vegetables | Center for Agriculture, Food, and the Environment at UMass Amherst](#)
[Horticulture Fact Sheets](#)
[Vegetable Gardening | National Agricultural Library](#)
[Shop 4-H Gardening Curriculum](#)
[Protected Plants | South Haven Garden Club](#)
[Michigan's Rare Plants](#)

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Horticulture–Vegetable Gardening

Guidelines:

- Exhibitors do not have to exhibit a notebook but may if they wish.
- Exhibits shall include a display of garden vegetables from the member's own garden.
- Presentation is key.
- Master gardener must enter a vegetable plant exhibit and Master gardener exhibit (education exhibit on experiment affecting yield of one vegetable or education exhibit demonstrating a good gardening practice).
- Additional Tips will be located on page 5 of this document.

Section A –Garden Notebook

- The garden notebook should demonstrate what was learned through the study of vegetables, plant science and gardening.
- Notebooks must be cumulative.
- Garden notebook worksheets are on page 6 of this document.
- Make sure to keep track of all plants planted each year including the variety.
- It is also recommended to keep and use a calendar in your notebook to keep track of when you planted, did maintenance, started harvesting, etc.

Section B–Plate Exhibit

- Beginners (1st and 2nd year) must have three or more varieties of vegetables.
- Advanced (3rd and 4th) gardeners must exhibit five or more varieties from their garden.
- Master gardeners (5th year and beyond) must exhibit seven or more varieties from their garden (one being a bush or stalk variety, one a vine vegetable and one a root vegetable).

Section C–Master Gardener Exhibit

- Master Gardeners (5th year and beyond) must exhibit an educational exhibit in a notebook, poster or 3-D exhibit. If choosing a notebook, it must be different from the garden notebook submitted in section A.
- The exhibit must be about an experiment they conducted that affects the yield of 1 vegetable or an exhibit that demonstrates a good gardening practice.

Section D–Container Gardening

- The maximum container volume is 5 gallons.
- Project may be one of these options
 - Three containers of 3 or more varieties.
 - Three containers of 3 or more herb varieties plus a poster showing the use of herbs planted.

Section E–Commercial Gardening

- The exhibit must include at least one vegetable from your garden along with a consumer fact sheet.
- Examples of consumer fact sheets
 - [Beets consumer fact sheet](#)
 - [Cyclamen \(Cyclamen persicum\) - Indiana Yard and Garden](#)

Section F–Basic Plant Science

- Horticultural Experiment
 - Make a notebook (different from garden notebook submitted in section A), poster or 3-D exhibit about an experiment you did using the scientific method (question, research, hypothesis, experiment, data, conclusion) as a guide.
- Plant propagation
 - Make a notebook (different from garden notebook submitted in section A), poster or 3-D exhibit about plant propagation.
- Any other horticulture science
 - Make a notebook (different from garden notebook submitted in section A), poster or 3-D exhibit about any other horticulture science topic that is not shown above can be exhibited here.

Horticulture–Wildflowers

Guidelines:

- Exhibitors may exhibit in Section G and up to 3 other projects from the sections H-L. Educational projects such as in section H and I should only be done once unless a more in-depth analysis is done.
- **Make sure to know what wildflowers are protected in Michigan as well as what they look like as it is illegal to pick protected wildflowers or any plant that is in a protected nature area such as a state or national park.**

Section G–Collections

- The exhibited project must be a notebook with the information included below:
 - First year members must demonstrate knowledge of all protected Michigan wildflowers (included in notebook) and 10 pressed and identified wildflowers (personal photos or drawings may be substituted).
 - Second year and beyond the notebook must include a collection of 10 additional identified wildflowers not previously added, notebooks must be cumulative with an index sheet.

Section H–Parts of Flowers

- Project can be a notebook, poster or 3-D exhibit.
- Inflorescence
 - Show how flowers are arranged on a stem and identified.
 - Identify wildflowers that would show examples of these types of arrangements and give identification.
- Leaf types and arrangements
 - Show leaf types and how they are arranged on the stem. Include identification.
 - Give examples of wildflowers that would have these types of leaves.
- Flower parts
 - Show the parts of both a simple and a composite flower.
 - Give examples of wildflowers that are simple and composite flowers.

Section I–Habitat

- Project can be a notebook, poster or 3-D exhibit.
- Compare habitats
 - Compare three habitats and give examples of at least five flowers that would grow in these habitats. Some habitats you may choose could be woods, prairies, aquatic, meadow/field, lakeshores, dunes, bogs or wetlands.
- Study of soils
 - Study of soil. Describe clay, sand, loam and humus. Design an experiment showing the different properties of these soils. Give examples of wildflowers that grow best in these different types of soils.
- Study of the effects of sunlight or water.
 - Do a study of the effects of sunlight or water on wildflowers.

Section J–Creativity with Wildflowers

- Make a craft using wildflowers.
 - Make a craft using wildflowers and be able to explain how you completed your craft. Must include an identification card of the wildflowers used in the project. A basic identification cards can be found on page 8, other identification cards/tools may be used in place of the basic identification card that is provided.
- Creative display
 - Make a display using wildflowers and be able to explain how you completed your display. An identification card for the wildflowers must be included with the project. A basic identification cards can be found on page 8, other identification cards/tools may be used in place of the basic identification card that is provided.

Section K–Advanced Educational Project

- Choose a subject to research about wildflowers and share your findings and knowledge of wildflowers in a display such as a notebook, poster or 3-D display.
- Project should be different from the above listed educational projects.
- If a demonstration is the final product of your research, youth must sign up under Department 73, Section A.

Section L–Wildflower related Project

- Any other projects related to wildflowers that do not fit in any of the categories above.
- If using wildflowers in your project an identification card for the wildflowers must be included. A basic identification card can be found on page 8, other identification cards/tools may be used in place of the basic identification card that is provided.

Vegetable Gardening Tips

- **Getting Started:** You probably already know what kind of vegetables you would like to grow this year. The first thing you will have to do is get together with one of the master gardeners, a parent or guardian, and make sure that your favorite vegetable will grow well. Vegetable seeds are available from seed catalog companies or locally. Garden shops will also have seedlings available in the spring.
- **Planning, Planning and More Planning:** As a novice gardener, planning your garden will be easy. If your parents or guardian have a garden, ask them if it is ok to grow a few plants next to their plants. If you are keeping a notebook, draw a map of their garden and mark where your plants will be.
- **The Two Rules:** If this is the first time you have ever had a garden at your house or apartment and you want to have a super garden, follow these two rules: start small and have lots of sunshine. It is better to have a small garden that is easy to water and weed than to have a big garden. If you want a garden that is easy to weed, try making one that is 4 feet wide and 9 feet long. If you want a garden that has rows in it to walk between, try making one that is 10 feet wide and 12 feet long. Don't make it any bigger than this. Vegetables need plenty of sunshine. Locate your garden away from large trees and buildings where there is too much shade. It is a good idea to plant the vegetables that will grow the tallest (corn, tomatoes and pole beans) on the north side of your garden. This way your tall vegetables won't shade your shorter vegetables.
- **Gardening Tools and Safety:** It is important to know the correct way to use each tool. Steel rake, hoe, spade, hand trowel, string and yardstick are a few of the tools you may use.
- **When To Start Planting:** A really good way to figure out when to start planting is to ask somebody else. Some vegetables take a long time to grow, others like cool weather and of course you want your vegetables ready to be shown at the fair. Get a calendar that is just for your vegetable garden project and figure out when to plant your seeds and seedlings. If you're keeping a notebook, make sure your calendar is in it.
- **Insects and Pests:** good or bad and what to do about them.
- **Fertilizer/ Insecticides:** proper use and handling skills.
- **Organic Gardening:** using methods or products that come directly from nature.

Vegetable Gardening Notebook

Name: _____

Club: _____

Age: _____ Years in project: _____

Attach a color photograph of your garden

What type of garden did you use? In ground Raised Garden Container garden Other _____

How large is your garden? _____ square feet

If a container garden was used, how many containers did you have? _____

Did you have insect/pest/animal problems? _____

What did you do to solve the problem and how well did it work? _____

Are there any plants from this year you would consider planting again next year? _____

Is there anything you would do differently from this year? Why or why not? _____

What did you learn from gardening this year that will help you garden in the future? _____

Kind of Vegetables grown	Variety	Date planted	Number of plants, seeds, or feet in a row	Date first harvested	Did you use fertilizer? (What type was used?)	Average yield per plant or row
Example: Tomatoes	Beefsteak Tomatoes	May 15th	4	July 17th	Yes, Miracle grow, all purpose	14

Draw an aerial view of your garden with different plant zones labeled. May use another page, if needed

Wildflower Identification Card

Photo or drawing of wildflower	Flower Name: _____ Scientific Name: _____ Where it was found: _____ _____
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