

Kalamazoo County 4-H

Agriculture Project Guidelines

Project Leader or Superintendents: N/A

Project Social Media: N/A

Project Objectives & Life Skills*

- 4-H'ers will learn about growing crops and how soil affects the end products.
- 4-H'ers will learn the science behind agriculture.
- Head
 - Keeping records
 - Planning/organizing
 - Goal setting
 - Problem solving
- Heart
 - Communication
 - Conflict resolution
 - Sharing
 - Concern for others
- Hands
 - Responsible citizenship
 - Marketable skills
 - Self-motivation
 - Contributions to group effort
- Health
 - Healthy lifestyle choices
 - Disease prevention
 - Personal safety
 - Self-discipline

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

Additional Resources:

[Crops and Agriculture Curriculum – Shop 4-H](#)
[Agronomy | Iowa State University Extension and Outreach 4-H Youth Development](#)
[Appreciating the Power of Plants - National 4-H Council](#)
[North Dakota 4-H Crop Production Project Sheet](#)

MSU is an affirmative-action, equal-opportunity employer, committed to achieving excellence through a diverse workforce and inclusive culture that encourages all people to reach their full potential. Michigan State University Extension programs and materials are open to all without regard to race, color, national origin, gender, gender identity, religion, age, height, weight, disability, political beliefs, sexual orientation, marital status, family status or veteran status. Issued in furtherance of MSU Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Quentin Tyler, Director, MSU Extension, East Lansing, MI 48824. This information is for educational purposes only. Reference to commercial products or trade names does not imply endorsement by MSU Extension or bias against those not mentioned.

Michigan State University is committed to providing equal opportunity for participation in all programs, services and activities. Accommodations for persons with disabilities may be requested by contacting the event contact [insert name] two weeks before the start of the event [insert deadline date] at [insert phone number and email]. Requests received after this date will be honored whenever possible.

Agriculture

Guidelines:

- Suggested learning activities
 - How to keep accurate crop records
 - Be able to identify different crops and their seeds.
 - Be able to identify weeds and their seeds
 - Understand soil management and how it relates to high-quality crops
 - Know the basic principles of plant growth

Section A –Small grains

- **All small grains projects must include a crop record sheet** found on page 3 of this document.
- No loose papers will be accepted. Crop record sheet should be in a binder, presentation folder or the like.
- Small grains should be sorted. entries will be judged on cleanliness, grain size, color evidence of mechanical damage and disease.
- Wheat–Should include 4 quarts of wheat crop in a clear lidded container.
- Oats–Should include 4 quarts of oat crop in a clear lidded container.
- Any other small grain–Should include 4 quarts of the chosen small grain in a clear lidded container.

Section B–Field Crops

- **All field crops projects must include a crop record sheet** found on page 3 of this document.
- No loose papers will be accepted. Crop record sheet should be in a binder, presentation folder or the like.
- Corn–4 stalks or 10 ears of corn
 - Corn stalks should be clean and free of insect damage and cut just above the root system.
 - Stalks should be tied together.
 - Corn ears will be judged on uniformity of size and length, fullness of ears, straightness of rows, evidence of mechanical damage and disease. Ears should be clean, free of mold and insect damage at time of judging
- Soybeans–4 quarts or 12 stalks
 - Soybeans should be sorted and will be judged on cleanliness, bean size, color, evidence of mechanical damage or disease.
 - Soybean stalks should include roots and be tied together.
 - Soybean plants will be judged on root system, number of pods, fullness of pods, maturity of plants, height of plants, degree of nodulation of roots and insect damage.
- Hay
 - Hay must be one whole bale.
 - Hay will be judged on stem quality, odor, leafiness, freedom from weeds, mold, foreign matter, insects and insect damage.
- Any other not listed above

Section C–Crop Science

- Exhibit 20 labeled mounted weeds
- Exhibit on lawn management or crop production

Section D–Soil Science

- Educational exhibit can be poster, notebook or 3-D exhibit
- Fruit and Nuts
- One quart container of nuts
- One plate of fruit grown or planted
- Educational exhibit

Kalamazoo County 4-H Crop Record Sheet and Summary

4-H'ers Name: _____ Age: _____ Year: _____

Crop Name: _____ Years in project: _____

1. Description of field

- a. Size of field _____ Acres _____
- b. Kind of soil (texture) _____
- c. Topography level Rolling Hilly
- d. Drainage Good Fair Poor

2. Previous crops grown

- a. Last Year _____
- b. 2 years ago, _____
- c. 3 years ago, _____

3. Soil Test Report from Soil Lab

- a. pH _____
- b. P₂O₅ High Medium Low
- c. K₂O High Medium Low
- d. Would crops benefit by the use of lime?
 Yes No

4. Fertilizer Used

- a. Loads of barnyard manure per Acre _____
- b. Commercial fertilizer broadcast _____
lbs. per acre. Analysis _____
- c. Commercial fertilizer in the row _____
lbs. per acre. Analysis _____
- d. Commercial fertilizer side dressing
_____ lbs. per acre. Analysis _____

5. Preparation of soil

- a. Date of soil preparation _____
- b. Kind of fitting tools used _____
- c. Did you try to use minimum tillage?
 Yes No

6. Condition of the soil at planting time? *

7. Seed

- a. Variety _____
- b. Was certified or hybrid seed used?
 Yes No
- c. Was seed treated for disease? Yes No
- d. If treated, what chemical was used? _____
- e. Was the seed tested for germination?
 Yes No _____ %

8. Planting

- a. Number of seeds used per acre. _____
- b. Date of Planting _____
- c. Row Crops—distance between rows? _____
—spacing in rows _____
- d. Would your drill keep the fertilizer away
from the seed? Yes No
- e. Did you get the crops planted on time?
 Yes No

9. Stand

- a. Did you get a good stand? Yes No
- b. If not what happened? _____
- c. Population (corn) _____

10. Cultivation

- a. Number times cultivated _____
- b. Number of times hoed _____
- c. Were chemical-weed killers used?
 Yes No
- d. If used, indicate kind, amount and when
applied. _____
- e. Did this kill the weeds? Yes No

11. Insects and diseases

- a. What were your major insect and disease
problems? _____
- b. Treatments to control them _____
- c. The number of times sprayed _____
Materials used _____
- d. Number of times dusted _____
- e. Materials used _____

12. Harvesting

- a. Date of harvest _____
- b. Method of harvesting _____
- c. Total yield _____
- d. Yield of marketable crop _____
- e. Average yield per acre _____
- f. Major harvesting problems _____

*Too wet, too dry, lumpy, etc.