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

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 exhibits 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. Typography □ 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. P_2O_5 □High □ Medium □ Low
   c. K_2O □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.