

## SUNFLOWER STANDARDS

The General Seed Certification Standards, as adopted by the Montana Seed Growers Association, are basic and together with the following specific standards constitute standards for certification of sunflower seed.

### I. Land Requirements

Sunflowers must be planted on land on which no sunflowers were grown the last two crop years.

### II. Isolation

|          | Wild Type | Oil Type | Non-oil Type |
|----------|-----------|----------|--------------|
| Non-oil  | 1 mile    | 1 mile   | 2640 ft.     |
| Oil-type | 2640 ft.  | 2640 ft. | 1 mile       |

### III. Field Standards - General

- A. A portion of a field may be certified. This may be that portion meeting the required isolation distance from a contaminating source. The area to be certified must be staked and well defined.
- B. Off-type plants or variety mixtures must be removed during the bloom period before pollination occurs.
- C. Fields producing seed of certified hybrids must have at least 50 percent of the parent male plants flowering and producing pollen at the time when the parent female plants are in full bloom. Female plants that have flowered and are shedding pollen must be removed before the male parents are shedding pollen.

### IV. Field Standards - Specific

|  | Ratio of Plants - Maximum Permitted |       |       |
|--|-------------------------------------|-------|-------|
|  | Fdn                                 | Reg   | Cert  |
| Off-type plants <sup>1</sup> including other varieties | 1:200                               | 1:200 | 1:200 |
| Hybrids <sup>2</sup>                                   | 1:250                               |       | 1:250 |
| Verticillium wilt <sup>3</sup>                         | 1:500                               | 1:250 | 1:200 |
| Corn Plants producing seed                             | None                                | None  | None  |

<sup>1</sup> Wild branching type, purple, white seeded. Other varieties are those that can be differentiated from the variety being inspected. It shall not include variations characteristic of the variety.

<sup>2</sup> Standards apply equally to seed and pollen parents which may include, not to exceed 1:1,000 each, of Wild-type Branching, Purple Plants, or White seeded.

<sup>3</sup> Verticillium wild plants must be rogued to these levels. These will be plants where wilt appears in the upper half of the plant.

### V. Field Inspection

For open-pollinated varieties, one field inspection will be made when the field has at least 50 percent of the plants in bloom.

### VI. Eligibility

Two types of Sunflower Seed production are recognized.

- A. Open-pollinated varieties: "Breeders" and "Foundation" seed classes will be recognized and accepted as the parental materials to be used to produce certified seed to be planted to produce commercial sunflowers.

- B. Hybrid (controlled-pollination) varieties: "Breeders" and "Foundation" seed classes will be recognized for parental materials for the production of certified seed. The certified class is planted to produce commercial sunflowers used for purposes other than seed production.  
"Hybrids - upon request and appropriate documentation of seed producing firm."

**VII. Preparation of Seed for Final Certification**

- A. Cleaning
  - 1. Clean all seed at a commercial plant authorized by the MSGA.
  - 2. Seed delivered to the cleaning plant by grower must be identified by variety and certification number. A copy of the grower’s Application for Certification or field inspection form will suffice.
- B. Seed Sample for Grade Determination  
Submit a cleaned, 3-5 pound seed sample bearing positive identification to the Montana Seed Growers Association office for "Certified Grade Determination". Use official MSGA seed sample bags. If multiple lots from the same fields are harvested and cleaned separately, a sample for purity and germination must be submitted for each clean lot.
- C. Label orders should be noted on the "Conditioner's Report". Labels will be issued upon receipt of production fees.

**VIII. Seed Standards**

| <b>Factor</b>    |       | <b>Fdn %</b>      | <b>Reg %</b>      | <b>Cert %</b>     |
|------------------|-------|-------------------|-------------------|-------------------|
| Pure Seed        | (min) | 98.00             | 98.00             | 97.00             |
| Inert Matter     | (max) | 2.00              | 2.00              | 2.00              |
| Total Weed Seeds | (max) |                   |                   |                   |
| Objectionable    |       | None <sup>1</sup> | None <sup>1</sup> | None <sup>1</sup> |
| Restricted       |       | None <sup>1</sup> | None <sup>1</sup> | None <sup>1</sup> |
| Other Crop Seeds | (max) | None              | 1/2 lb            | 1/lb              |
| Other varieties  | (max) | .02               | .02               | .01 <sup>2</sup>  |
| Corn Seeds       | (max) | None              | None              | 1/lb              |
| Germination      | (min) | 85.00             | 85.00             | 85.00             |
| Sclerotia        | (max) | 1/lb              | 1/lb              | 1/lb              |

<sup>1</sup> “None” means none found during the normal inspection procedures. None is not a guarantee to mean the lot inspected is free of the factor.

<sup>2</sup> Includes purple or white seed.