

**Colorado Seed Growers Association
Department of Soil & Crop Science
Colorado State University**



**CERTIFIED SEED CONDITIONING
MANUAL**

January 2025

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1 Introduction

The seed certification system ensures the purity of seed (both mechanical and varietal) from breeder to farmer. By monitoring each step of production and handling, the Colorado Seed Growers Association (CSGA) aims to protect seed quality and reduce the risk of contamination.

2 Type of Approved Certified Seed Conditioners

2.1 Class I Approved Conditioner

Class I Approved Conditioners are defined as individuals, partnerships, or corporations that:

- Condition Colorado certifiable seed on a custom basis for a fee, and/or
- Produce and/or purchase Colorado certifiable seed and condition that seed for certification.

2.2 Class V approved Conditioner

- Operate their own facilities exclusively for conditioning seed they grow.
- Not authorized to condition seed for other growers

3 Application Process for New Approval and Renewal (stationary and portable)

3.1 Application Process for New Approval (class I and class V)

- **Submission Timeline:**
Submit a written application to the **CSGA** at least **30 days** prior to starting seed conditioning.
- **Membership Fees:**
The applications must be accompanied by the CSGA membership fee established by the CSGA Board of Directors. Fees must be paid before any conditioning begins.
- **Inspection:**
CSGA will conduct an initial in-person inspection of facilities, including equipment, storage bins and area, records-keeping system, and operational practices before beginning of seed conditioning. Following the inspection, CSGA will notify applicants of approval or refusal status.

3.2 Application Process for Renewal of approved conditioners (class I and class V)

- **Annual Application Distribution:**
Renewal applications "**Approved Conditioner Application**" will be emailed to all current approved conditioners class I and class V in early January each year.
- **Deadline for Submission:**
Completed renewal "**Approved Conditioner Application**", along with the required fees, must be submitted by **March 15**.
- **Late Submission Policy:**
Late submissions result in the loss of approved status, requiring reapplication.

3.3 Conditioner Fees:

Fee Type	Amount	Notes
Class I - First Facility	\$50.00	
Class I - Additional Facility	\$50.00	For each additional facility operated under the same business.
Class V (stationary or portable)	\$25.00	Applicable for businesses conditioning only their own seed.
CSGA Membership Fee	\$150.00	Includes one Annual Meeting Registration and is mandatory for all Approved Conditioners.

3.4 Approval Criteria

Class I and class V conditioners are approved after meeting the following criteria:

- Application submission
- Payment of fees
- Completion of training
- Inspection and approval by CSGA

3.5 Annual Inspection

- All approved class I and class V conditioners are subject to be inspected every 3 years, which include equipment, storage bins and area, records-keeping system, and operational practices. These inspections are provided at no cost to the CSGA approved conditioners.

3.6 Registration with CDA

- Class I conditioners must register with the Colorado Department of Agriculture (CDA).
- For more details, visit: [Seed | Department of Agriculture](#)
- Class V conditioners do not need to register with CDA.

4 Equipment and conditioning Requirements

4.1 Required Equipment for Class I Conditioners

Air-Screen Cleaners

- Must allow for at least three separations to clean and condition the seed.
- Include automatic screen-cleaning mechanisms (e.g., brushes, ball trays, rollers).
- Feature two variable air-blast or vacuum aspiration systems to remove light or fluffy debris.
- Provide ample space around the cleaner for thorough cleaning and maintenance.

Secondary Equipment

- A gravity table or length grader must be included to handle the continuous flow of seed.
- Surge bins are required to hold at least two hours' worth of seed output from the air-screen cleaner.
- Optional machines (e.g., spirals, velvet rolls) must have proper clean out mechanisms.
- Certifiable **bean seed** must be conditioned using a gravity table.

Conveying Equipment

- Use self-cleaning designs like vertical conveyors and/or elevators that ensure easy cleaning and prevent seed damage.

Seed Treaters and Bagging Equipment

- Seed treaters and bagging equipment for safe handling.
- Treated and untreated seeds must not share bins or handling equipment.
- Bagging lines should support proper sealing, marking, and tagging of seed bags.
- Only new bags can be used.

Storage Bins

- Thoroughly clean bins before use.
- Protect bins from contamination by dirt, rodents, or other substances.
- Clearly label bins with seed type or variety.

Cleanup Tools

- Keep tools like brooms, shovels, compressed air systems, and vacuums readily available to clean inaccessible areas.

4.2 Required Equipment for Class V Conditioners:

Follow Class I guidelines where possible, especially when upgrading equipment.

4.3 Handling and Transfer of Unconditioned Seed Lots

- If a seed lot is not conditioned in a continuous operation, each separate conditioning produces separate lots. Separate seed samples and information forms must be submitted for each lot.

4.4 Blending Lots of Seed:

- A grower may combine seeds of the same variety from multiple fields, but if seed lots of different classes are combined, the lowest class shall apply. This combination must be reported on the Seed Sample Identification form (Form D). This is also called:
 - o **InDirt Blend:** Co-mingling of harvested seed from inspected fields of the same variety but with different certification numbers.
- Different lots of certifiable seed of the same variety produced by two or more growers (or seed lots of the same variety produced in different years by the same grower) may be blended only by Class I conditioners, with separate samples submitted prior to blending and a sample of the blended must be submitted. CSGA must be notified of the amount of each lot used in the blend. This is also called:
 - o **Lot Blend:** Combining seed lots of the same variety, such as different lots of Sheridan HRWW grown by different growers.

4.5 Weeds seed in the Sample

- Seed lots must be reconditioned, resampled, and relabeled if prohibited or restricted noxious weed seeds are found, causing rejection of the seed lot for certification. The lot can be reconditioned and resubmitted for reconsideration of certification.

5 Responsibilities of Seed Growers and Approved Conditioners

5.1 Responsibilities of Seed Growers

- Growers are responsible for delivering seeds to a CSGA-approved conditioner.
- Equipment used in harvesting, transporting, and storing seeds must be clean.

5.2 Responsibilities of Approved Conditioners

- Use only CSGA-approved air-screen cleaners and secondary equipment like gravity tables.
- Thoroughly clean equipment between seed lots to prevent contamination.
- Collect and send representative seed samples to an approved lab for testing.
- Maintain the identity of seed lots throughout the process.
- Properly tag and label all conditioned seed bags with variety, lot number, and certification status.
- Keep detailed records for at least two years, including grower details, lot numbers, dates of conditioning, storage bins used, and shipping logs.
- A two-pound sample of both raw and cleaned seed must be retained for at least two years.
- Ensure all certifiable seeds are inspected by CSGA to meet certification standards.
- Allow unannounced inspections to verify compliance.
- Train personnel in equipment operation and attend CSGA-approved training within the first year.
- Participate in continuous education workshops or online training every three years.

6 Training and Education for Conditioners

6.1 New Conditioner Training

Class I and class V conditioners new to the CSGA program must be complete:

- A CSGA-approved training course
- Or attendance at a CSGA-approved workshop

6.2 Continuing Education

Within a three-year period, all approved conditioners (class I and class V) must:

- Attend one approved workshop or complete an online training module
- Undergo an in-person inspection

7 Disciplinary Actions

7.1 Handling Complaints

When a seed complaint is received, CSGA will notify:

- The conditioner of the seed lot
- The grower of the seed lot
- Relevant committee chairs

Conditioners must respond to complaints within 10 working days.

7.2 Probation and Suspension

Failure to address complaints may result in:

- Probation for at least one year
- Quarterly inspections and independent testing at the conditioner's expense
- Revocation of approved status for repeated violations

8 Review and Update

This manual will be reviewed annually and updated as needed to ensure it accurately reflects a clear Certified Seed Conditioning System. We welcome your feedback and encourage you to share your suggestions for improvement with CSGA.

9 Appendices

Appendix I: Glossary of Terms

- **Approved Conditioner:** An individual or entity authorized by CSGA to condition certified seed.
- **Certifiable Seed:** Seed eligible for certification under CSGA standards.

Appendix II: Class I Approved Conditioner Standards

Please find it in pages 54-56, [Colorado Seed Certification Standards](#)

Appendix III: Class V Approved Conditioner Standards

Please find it in page 57, [Colorado Seed Certification Standards](#)