

10-05 Pulse Crop QA Program Purpose

Washington State Crop Improvement Association, Inc. (WSCIA) adopts rules to establish standards for a Quality Assurance Program in Washington State in order to maintain and make available sources of quality seeds of plant varieties so grown and distributed as to ensure identity and genetic purity.

10-10 Varieties eligible for the QA Program in Washington State

- 1) Only seed varieties submitted to Washington State Crop Improvement Association (WSCIA) and accepted by the WSCIA Certification Committee may be eligible for the QA Program.
- 2) A current list of varieties eligible for the QA Program in Washington State may be obtained by contacting Washington State Crop Improvement Association, 2575 NE Hopkins Ct, Pullman, WA 99163, (509) 334-0461.
- 3) The following information is required for submission and acceptance of a seed variety:
 - a. A statement and supporting evidence by the originator, developer, or owner requesting QA acceptance that:
 - i. The variety is distinguishable from other varieties as set forth in Article 5, International Code of Nomenclature for Cultivated Plants, which reads as follows: “The term cultivar (variety) denotes an assemblage of cultivated individuals which are distinguished by any characters (morphological, physiological, cytological, chemical or others) significant for the purposes of agriculture, forestry, or horticulture, and which, when reproduced (sexually or asexually) retain their distinguishing features.”
 - b. A statement of origin
 - c. A description of:
 - i. The morphological characteristics, (such as color, height, uniformity, leaf, head, or flower characteristics, etc.)
 - ii. Disease and insect reactions; and
 - iii. Any other identifying characteristics of value to field inspectors and other pertinent factors as the breeder or sponsor considers relevant.
 - d. Evidence of performance including data on yield, insect or disease resistance and other factor supporting the value of the variety. Performance tests may be conducted by private seed firms or agricultural experiment stations and must include appropriate check varieties.
 - e. A statement giving the suggested region of probable adaptation and purposes for which the variety is used.
 - f. A description of the procedure for maintenance of stock seed

10-15 How may a person enroll seed into the QA Program

If a person wishes to participate in the Washington State Crop Improvement Association QA program, you must submit an application to the WSCIA office

- 1) An application for the QA program must be submitted for each crop, variety and field
- 2) Applications may be obtained from a certified seed processor or WSCIA
- 3) The applicant is responsible for payment of all fees
- 4) The applicant must attach to the application for QA Program official tag/labels and/or other verification from the seed stock planted.

10-20 Application for QA Program

- 1) Field inspection applications – Quality Assurance Program (QA)
 - a) Quality Assurance Program (QA) application due dates are:
 - (i) Alfalfa, clover, grasses and rapeseed (seedling applications) – within sixty days of planting. Seedling applications will not be accepted if received more than one hundred five days after planting.
 - (ii) Beans - July 1
 - (iii) Corn – June 1
 - (iv) Buckwheat, millet, small grains (both winter & spring varieties) – June 1
 - (v) Peas, lentils, chickpeas (spring varieties) – June 1st
 - (vi) Winter pulse crops - (peas, lentils) – May 1st
- 2) An application for seed to be enrolled into the QA program must be submitted to the certifying agency each year a grower plans to produce seed for the QA program of qualifying annual crops
- 3) Applications received after the due date are assessed a late application fee
- 4) No application for QA program may be accepted after the due date if a field inspection cannot be conducted prior to harvest except at the discretion of the certifying agency.
- 5) Public varieties currently marketed as Certified seed are not eligible to be labeled under the Washington State QA Program unless authorization is given by the originating institution.

10-25 Grower Responsibilities

All growers participating in the QA program must:

- 1) Maintain the purity and identity of seed harvested and/or farm stored, and ensures reasonable precaution is taken to control contaminating crops and varieties, noxious weed, and seed borne disease.
- 2) Exercise precaution to prevent seed crop and lot mixture when harvesting.
- 3) Identify the seed crop as it is delivered to the processor with the assigned field number or numbers.
- 4) Clean the seed crop at a seed conditioner approved by the department under WAC 16-302-125. A list of approved seed conditioners may be obtained from the Washington State Crop Improvement Association.
- 5) Comply with seed standards and procedures under the authority of chapter 15.49 RCW and rules adopted there under. (formerly the Washington Seed Act)
- 6) Harvesting seed before a field inspection by the certifying agency causes forfeitures of both the application and inspection fees, and completion of the QA program.
- 7) Failure of seed growers to comply with the seed laws and rules is cause for WSCIA to deny any QA Program acceptance.

10-30 Land History – QA Program

Land requirements for the QA Program are as established in the specific seed crop standards. When a cultural practice has proved to be successful, requirements may be modified upon written approval of WSCIA. Cultural practice may include any of the following:

- 1) Mechanical means such as deep plowing
- 2) Chemical means such as fumigants

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- 3) Other material for seed bed preparation. Materials and methods must be a matter of record. Any practice used must be adequate to ensure varietal purity and must be approved in writing by the certifying agency. Any deviations from established land requirements must be submitted in writing to the certifying agency.

10-35 When is a seed field inspected by the QA Program Agency

The agency conducts field inspections as follows:

- 1) A seedling field is inspected at the most appropriate time after receipt of seedling application.
- 2) Each year a crop of QA Program seed is produced, field inspections are made at a time when factors affecting QA Program acceptance are most evident.
- 3) The unit of QA Program inspection is the entire field standing at the time of inspection. A portion of a field may be entered in the QA Program if the area to enroll is clearly defined by flagging, stakes or other visual means.

10-40 Tolerances stated as "none found"

A tolerance of "none found" for contaminating or diseased material in either field or clean seed standards means that none was found during the normal procedure of field inspection or seed sample testing. None found does not constitute a guarantee that the field or seed is entirely free of the contaminant or disease.

10-45 What will cause a seed field to be ineligible for the QA Program

- 1) A seed field is not eligible for the QA program unless a field inspection is made prior to defoliation or harvesting.
- 2) The presence of prohibited noxious weeds or excessive objectionable weeds may be cause for rejection of a seed field. Prohibited noxious weeds must be controlled and in a non seed producing state at harvest of crop. Excessive weeds, poor stands, lack of vigor, or to other conditions which make inspection inaccurate may be cause for rejection.
- 3) If a seed field is rejected for the QA Program the grower may reapply to the QA Program agency and pay a fee for reinspection after the cause for rejection is corrected.

10-50 When may an applicant withdraw a field from inspection for the QA Program

The applicant applying for inspection by the QA Program may withdraw a field from field inspection by notifying the certifying agency before the field is inspected.

10-55 Agency power to reject

The QA Program agency shall have the authority to reject from the QA Program any lot of seed not meeting these regulations. The agency reserves the right to refuse QA Program acceptance on any lot of seed if, in the opinion of the QA Program agency, the color, appearance, or the condition of the seed might be detrimental to the QA Program. The agency has the authority to refuse acceptance into the QA program if the labeling of container is misleading or may tend to be confusing as to its contents.

Person found guilty of violation or misuse or abuse of these regulations shall be subject to prosecution under chapter 15.49 RCW. Proof of violation may result in removal of privileges of using the QA Program in any form, including handling or dealing in QA Program seed.

10-60 Sampling – Methods used in the sampling, inspecting, testing, analyzing, and examining seed for the QA Program

- 1) The terms used in seed testing and the methods of sampling, inspecting, analyzing, testing and examining seed for the QA Program are those adopted by the AOSA as shown in WAC 16-301-010.
- 2) The entire lot of seed must be cleaned and in condition for sale at the time of sampling
- 3) The sample shall be taken in accordance with official sampling procedures. Official sampling procedures are as follows:

SEED BAGS

- a) When more than one core is drawn from a bag, follow different paths. When more than one handful is taken from a bag, take them from well-separated points.
 - b) For lots of one to six bags, sample each bag and take a total of at least five cores or handfuls.
 - c) For lots of more than six bags, sample five bags plus at least 10% of the number of bags in the lot. Round numbers and decimals to the nearest whole number. Regardless of the lot size, it is not necessary to sample more than 30 bags.
- 4) **Bulk seed:** To obtain a composite sample, take at least as many cores or handfuls as if the same quantity of seed were in bags of ordinary size. Take the cores or handfuls from well distributed points throughout the bulk.
 - 5) A mechanical sampling device installed in a conditioning plant approved by the department under WAC 16-302-125 may be used in lieu of the sampling procedures above.
 - 6) If necessary for a sample to be taken by the department, or WSCIA, a sampling fee will be charged under provisions of chapter 16-303 WAC.

10-65 Identification of seed containers with field or lot numbers

- 1) The field number must be on all seed containers or bulk seed delivery documents to ensure identity when delivered to the seed conditioner.
- 2) All seed for the QA Program must be packaged in clean, new containers of uniform weight and identified with a lot number when tagged and sealed. The lot number must identify the producer and year of production for each lot of seed. This requirement may be satisfied by use of a conditioner’s code.

10-70 QA Program – Prohibited noxious weed seed

English or Common Name	Botanical or Scientific Name
Austrian fieldcress	Rorippa austriaca (Crantz) Bess
Field bindweed	Convolvulus arvensis L.
Hedge bindweed	Calystegia Spp.
Camelthorn	Alhagi maurorum
Canada thistle	Cirsium arvense (L.) Scop.
Dodder	Cuscuta ssp.
Hairy whitetop	Cardaria pubescens (C.A.Mey.)
Hoary cress	Cardaria draba (L.) Desv.
Jointed goatgrass	Aegilops cylindrica

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Leafy spurge	Euphorbia esula L.
Perennial pepperweed	Lepidium latifolium L.
Perennial sowthistle	Sonchus arvensis L.
Quackgrass	Elytrigia repens (L.) Beauv.
Knapweed complex	
Bighead	Centaurea macrocephala
Vochin	Centaurea nigrescens
Black	Centaurea nigra
Brown	Centaurea jacea
Diffuse	Centaurea diffusa
Meadow	Centaurea jacea x nigra
Russian	Acroptilon repens L.
Spotted	Centaurea maculosa
Purple starthistle	Centaurea calcitrapa
Yellow starthistle	Centaurea solstitialis L.
Serrated tussock	Nassella trichotoma
Silverleaf nightshade	Solarnum elaeagnifolium Cav.
Sorghum perennial such as, but not limited to:	
Johnsongrass, sorgum, almum, and	
Perennial sweet sudangrass	Sorghum spp.
Tansy ragwort	Senecio jacobaea L.
Yellow-flowering skeleton weed	Chondrilla juncea L.
White cockle	Silene latifolia (only in timothy)
Bladder campion	Silene vulgaris (only in timothy)
Lepyroclis	Lepyroclis holsteoides
Velvetleaf	Abutilon theophrasti

10-72 QA Program – Objectionable weeds

English or Common Name	Botanical or Scientific Name
Blackgrass	Alopecurus myosuroides
Blue lettuce	Lactuca tatarica
Docks and Sorrel	Rumex spp.
Field pennycress (fanweed)	Thlaspi arvense
Field sandbur	Cenchrus incertus
Halogeton	Halogeton glomeratus C.A. Mey.
Medusahead	Taeniatherum caputmedusea subsp. Caputmedusae
Plantains	Plantago spp.
Poverty weed	Iva axillaris Pursh.
Puncturevine	Tribulus terrestris L.
St. Johnswort	Hypericum perforatum L.
Dalmation toadflax	Linaria dalmatica (L.) Mill.
Yellow toadflax	Linaria vulgaris Hill.
Western ragweed	Ambrosia psilostachya DC.
Wild mustard	Sinapis arvensis subsp. Arvensis
Wild oat	Avena fatua L.
Gromwell (small grain)	Buglossoides arvensis
Bedstraw	Galium spp. (in alfalfa only)
Black mustard	Brassica nigra
Brown mustard	Brassica juncea (in rapeseed only)
Wild radish	Raphanus raphanistrum
Dyers woad	Isatis tinctoria

10-75 Completion of QA Program – when may seed be labeled

- 1) The QA Seed tag, label or seal is evidence of conformance to the QA standards of the contents and must be attached to a container of seed prior to distribution. Seed that fails to meet QA Program standards because of genetic purity is not eligible for labeling.
- 2) QA Program seed tags, labels, and seals must be obtained from the QA Program certifying agency, and must be attached to seed container in accordance with the agency's rules.
- 3) QA Program seed is valid only if tag, label, or seal is affixed to each container in accordance with the AOSCA procedures as shown in WAC 16-301-010.
- 4) No tag, label, or seal may be removed and reused without permission of the QA Program agency
- 5) A QA Program seed sale certificate will be issued upon completion of final acceptance into the QA Program for all seed to be sold in bulk. This certificate must accompany any shipment or transfers including those to other seed plants, out-of-state shipments or with any brokered seed. The seed plants own invoice may be used in lieu of a QA Program certificate for retail sales to growers.
- 6) Seed that fails to meet QA Program requirements on factors other than genetic purity may be designated substandard at the discretion of the QA Program agency. The QA Program tag or label attached to the seed must clearly show the reason the seed is substandard. Seed may not be tagged substandard if the seed can be re-milled to meet minimum seed standards

10-80 Limitation of liability – QA Program

The issuance of a QA Program seed label or certificate by the QA Program agency for a lot of seed affirms that seed has been produced and conditioned according to all rules adopted in this QA Program. The QA Program agency makes no warranty, expressed or implied or any representation as to the freedom from disease or quality of QA Program seed.

10-85 Labeling, advertising or other representation of seed - Prohibitions

It shall be deemed unlawful if any labeling, advertising, or other representation subject to chapter 15.49 RCW represents:

- 1) Seed to be QA Program seed unless it has been determined by the QA Program agency that such seed conforms to standards of purity and identity as to species (and subspecies, if appropriate), and variety, in compliance with the rules and laws of the of the agency pertaining to such seed.

10-90 Who may condition seed in Washington State

- 1) Under the authority of RCW 15.49.350, a seed conditioning facility must be inspected and approved by the department prior to conditioning seed in Washington state. Upon approval by the department, a seed conditioning permit is issued and the facility is placed on a list of approved seed conditioning plants. A copy of the list can be obtained by contacting the department seed program.
- 2) A person desiring to condition seed must make application to the department for a permit on a form provided by the department.
- 3) To obtain department approval for seed-conditioning permit, the department conducts an inspection. A facility must show evidence that:

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- a. Seed for QA Program is handled in a manner which prevents mixture of lots of seed:
 - b. The seed conditioning facility is maintained and cleaned. Equipment must be easily accessible for cleaning and inspection, and must be cleaned between lots:
 - c. Each lot of seed is identified with a lot number:
 - d. Screenings are disposed of in accordance with chapter 15.49 RCW: and
 - e. Seed is sampled in accordance with WAC 16-302—095, 16-302-090, and 16-302-091.
- 4) A seed conditioning facility must be approved by the department prior to handling seed for the QA Program in Bulk.

10-95 What are the responsibilities of a seed conditioner

- 1) It is the responsibility of a department approved seed conditioner to operate in a manner that:
 - a. Maintains the purity and identity of seed conditioned, stored, transshipped or labeled.
 - b. Complies with the standards and procedures for condition and sampling seed in accordance with chapter 15.49 RCW and rules adopted there under.
- 2) Records of all operations must be complete and adequate to account for all incoming seed and final disposition of seed.
- 3) The seed conditioner is responsible for QA Program fees, including sampling, testing, production and final QA Program fees, and may request the responsibility for addition fees.
- 4) Failure of seed conditioner to comply with the seed law and rules is cause for the department to revoke a seed conditioning permit under the provisions of chapter 34.05 RCW, the Administrative Procedure Act.

10-100 Labeling and sealing of QA seed by grower

- 1) The certifying agency may authorize a grower who has his own equipment and conditions his own seed to label and seal QA seed of pulse crops.

15-05 Miscellaneous field and seed inspection standards for Chickpea, field pea, and lentil for the WSCIA QA Program

- 1) Field inspection standards for chickpea, field pea, and lentil entered into the QA Program are as follows:
 - a. For field pea and chickpea (garbanzo bean) – when seed crop is in full bloom
 - b. For lentil – when seed crop is at full bloom
- 2) Any condition or practice which permits or causes contamination of the seed crop, such as failure to prevent seed formation of prohibited noxious weeds, or excess weeds including objectionable weeds, or mechanical field mixing, is cause for rejection upon inspection. Fields rejected for other causes will remain eligible for reinspection.
- 3) Field run lots of seed of the same variety may be commingled to facilitate storage and conditioning
- 4) No prohibited noxious weed seeds are permitted upon inspection for seed standards
- 5) Germination minimum refers to germination when sampled
- 6) If chemically controllable seed-borne diseases are noted upon inspection for field standards and seed standards treatment of seed is required.
- 7) The official laboratory providing seed analysis for the purpose of QA is the WSDA Seed Laboratory

15-10 Field Pea Standards for QA Program

- 1) The land, isolation, and field standards for field pea seed QA Program

<u>Land Minimum</u>	<u>Isolation Minimum</u>	<u>Off-Type/acre</u>	<u>Other Crop</u>
2 year (spring planted)	3* feet	20 **	None Found
3 year (fall planted)	3* feet	20 **	None Found

*fields producing same variety, to prevent field mixing of swathed field pea seed crop, the planting of small grain between field pea fields, except for the three feet isolation is recommended

**Unless described in the variety description provided by the plant breeder

- 2) Seed QA Program standards for field peas are:

<u>Off-Type Max %</u>	<u>Pure Seed Max %</u>	<u>Inert Max%</u>	<u>Other Crop Max. %</u>	<u>Weed Max%</u>	<u>Germination Max %</u>	<u>Objectionable Weed Seed Max%</u>
0.03%***	99.0%	1.00%	0.10%*	0.05%**	85% +	2/lb.

*For spring peas, no Austrian pea or rye is permitted. For Austrian peas, no rye is permitted

**Other tolerances for weed seed:

***Smooth Pea in wrinkle pea, yellow pea in green pea, etc.

+ Includes hard seed

15-15 Lentil Standards for QA Program

- 1) The land, isolation, and field standards for lentil seed QA Program

<u>Land Minimum</u>	<u>Isolation Minimum</u>	<u>Off-Type</u>	<u>Other Crop</u>
3 year	25* feet	20 **	None Found***

*fields producing same variety, small grains, to prevent field mixing of swathed field pea seed crop, the planting of small grain between field pea fields, except for the three feet isolation is recommended

**Unless described in the variety description provided by the plant breeder

*** Also includes barley and vetch

- 2) Seed QA Program standards for lentil are:

<u>Off-Type Max %</u>	<u>Pure Seed Max %</u>	<u>Inert Max%</u>	<u>Other Crop Max. %</u>	<u>Weed Max%</u>	<u>Germination Max %</u>	<u>Objectionable Weed Seed Max%</u>
0.03	99.0%	1.00%*	0.10%**	0.05%***	85% +	2/lb.

*A total of three percent inert matter is allowed in samples containing decorticated seed provided total of all other inert matter does not exceed one percent.

**No Vetch is permitted

***Other tolerances for weed seed

+ Includes hard seed

15-20 Chickpea Standards for QA Program

- 1) The land, isolation, and field standards for chickpea seed QA Program

Land Requirement Min Years	Isolation Min Ft	Off-Type (plant/A)	Other Crop (plant/A)	Noxious Weed (plant/A)	Ascochyta Blight(plant/A)
2 year *	25	10	None Found**	None Found***	10 ++

*Shall not have been planted to chickpeas for two years unless the previous crop is of the same variety and same class of seed

**Inseparable other crops such as peas

**Prohibited, restricted, and other weeds difficult to separate must be controlled

++ None found in all classes of nontolerant varieties. Planting seed stocks must be treated with Thiabendazole (2-(4-triazoy) benzimidaole

QA Program chickpeas must be inspected at bloom stage plus another at pod stage if Ascochyta blight is observed during the bloom stage inspection. If Ascochyta blight is found at bloom stage the field may be withdrawn at that time or control efforts may be put into place to meet the 10 plants per acre standards for Ascochyta blight at maturity.

- 2) QA Program seed standards for chickpea are:

Pure Seed Max %	Inert Max%	Other Crop Max. %	Weed Max%	Germination Min %
99.0%	1.00%	0.10%*	2 seed**	85%

*None found for Austrian pea, rye, or vetch

**None found for nightshade berries or prohibited noxious weed seed.

All seed must be treated with Thiabendazole (2-(4-thiazoy) benzimidazole at the labeled rate) before germ testing may take place

20-05 QA Program fees for chickpea, field pea, and lentil

- 1) The QA Seed Program fees for chickpea, field pea, and lentil are as follow:

a) Application fee per variety per grower	\$22.97
b) Field inspection fee per acre	\$ 3.11
c) Special field inspection fee per acre	\$ 2.58
d) Late application fee	\$30.75
e) Re-inspection fee	\$43.10

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Minimum for each field which did not pass field inspection plus \$0.46 for each acre over twenty five. The re-inspection fee for isolation requirements only for a field of any size is \$43.10

- f) Final certification fee \$ 0.15
Per cwt. Of clean seed sampled, which is charged to the conditioning plant.
 - g) Sampling fee \$ 0.105
Per cwt. of clean seed sampled with minimum charge of \$10.30 per sample, which is charged to conditioning plant
In lieu of mechanical sampling
 - h) Additional fees such as mileage and time may be assessed as permitted in WAC 16-303-250 Miscellaneous charges for seed services.
- 2) A field may be withdrawn upon notification by the applicant to the agency's office before field inspection. In such case, the field inspection fee is refunded upon request until June 30 of the year following harvest.
 - 3) Harvesting before field inspection causes forfeitures of both the application and field inspection fees, and completion within the QA Program.