Republic of Latvia

Cabinet
Regulation No. 148
Adopted 18 April 2000

Regulations on Cultivation and Marketing of Cereal Seed

Issued pursuant to Section 2, Paragraph one, Sub-paragraph a) of the
Seed and Planting Stock Circulation Law

I. General Provisions

1. These regulations prescribe the procedures for cultivating and marketing cereal seed.

2. These regulations shall apply to the following cereal species, the cultivation of which is intended for agricultural production: rye (*Secale cereale L.*), wheat (*Triticum aestivum L.*), barley (*Hordeum vulgare L.*), oats (*Avena sativa L.*), triticale (*Triticosecale Wittm*), buckwheat (*Fagopyrum esculentum Moench*) and maize (*Zea mays L.*) (hereinafter – seed).

II. Seed Categories

3. Seed shall be categorised as follows:
3.1. breeder seed (BS);
3.2. pre-basic seed (PB);
3.3. basic seed (B); and
3.4. certified seed (C).

4. Breeder seed (BS) is a limited quantity of seed that ensures the retention of the varietal characteristics through several generations. Such seed shall be obtained by and the propagation scheme of it shall be determined by the breeder or the successor in interest. Certification of breeder seed is not obligatory. On the initiative of the breeder or the successor in interest, in specific cases certification may be conducted to determine the actual quality of seed.

5. Pre-basic seed (PB) is seed that:
5.1. has been cultivated directly from breeder seed under the responsibility of the breeder or the successor in interest observing the generally accepted practice for preservation of the variety;
5.2. is intended for the production of seed of the basic seed (B) and certified seed (C) categories;
5.3. conforms to the requirements for basic seed prescribed in these Regulations; and
5.4. is under the control of the State Plant Protection Service throughout the entire period of cultivation and processing of the seed.

6. Basic seed (B) (except hybrid seed of cereal species) is seed that:
6.1. is obtained from pre-basic seed or directly from breeder seed;

6.2. is cultivated under the responsibility of the breeder or the successor in interest, observing the generally accepted practices for preservation of the variety;

6.3. is intended for the production of seed of the certified seed (C) category;

6.4. conforms to the requirements for basic seed (B) prescribed in these Regulations; and

6.5. is under the control of the State Plant Protection Service throughout the entire period of cultivation and processing of the seed.

7. Basic seed shall be divided into two generations:

7.1. first generation basic seed (B1) is obtained from pre-basic seed or directly from breeder seed; and

7.2. second generation basic seed (B2) is obtained from first generation basic seed.

8. Rye hybrid basic seed (B) is seed that:

8.1. is intended for the production of hybrid seed; and

8.2. conforms to the requirements for basic seed as prescribed in these Regulations.

9. Certified seed (C) is seed that:

9.1. is obtained directly from second generation basic seed (if the breeder wishes, also from first generation basic seed or directly from pre-basic seed);

9.2. conforms to the requirements for certified seed as prescribed in these Regulations; and

9.3. is intended for the production of seed or for other purposes.

10. Certified seed of self-pollinating cereal species (wheat, barley, oats, triticale) shall be divided into two generations:

10.1. first generation certified seed (C1); and

10.2. second generation certified seed (C2).

11. Seed of foreign pollinating cereal species (rye, buckwheat) has only the first generation (C1).

12. Certified seed of the first generation (C1) is seed that:

12.1. is cultivated directly from second generation basic seed (if the breeder wishes, also from the prior generation basic seed or directly from pre-basic seed);

12.2. conforms to the requirements of first generation certified seed as prescribed in these Regulations;

12.3. is intended for the production of second generation certified seed or for other purposes; and

12.4. is under the control of the State Plant Protection Service throughout the entire period of cultivation and processing of the seed.

13. Certified seed of the second generation (C2) is seed that:

13.1. is cultivated directly from first generation seed (if the breeder wishes, also from basic seed or directly from pre-basic seed);

13.2. conforms to the requirements of second generation certified seed as prescribed in these Regulations;

13.3. is not intended for further growing of seed; and

13.4. is under the control of the State Plant Protection Service throughout the entire period of cultivation and processing of the seed.

III. Requirements Prescribed for Cultivation of Seed

14. Each seed grower may grow seed of one or a number of varieties or categories if there are appropriate material and technical facilities and the ability to ensure that seed of various varieties or categories does not mix.

15. Planted fields for the cultivation of cultured plant species and varieties shall be located only where suitable previous plants have been cultivated. Cereal seed may also be cultivated in fields where seed of the same variety and the same or higher category has been cultivated, but may not be cultivated in fields where another variety of the same species of cereal has been cultivated in the previous two years. The rotation of crops each year shall be recorded in the record of field history.

16. The minimum distances between separate planted seed-cultivation fields are specified in Annex 1 of these Regulations.

17. The number of diseased plants permitted in seed-cultivation fields is specified in Annex 2 of these Regulations.

IV. Inspection of Seed-cultivation Fields

18. Inspection of fields shall be conducted in order to evaluate the overall condition of seed-cultivation fields, their conformity to the requirements prescribed in Chapter III of these Regulations, and to determine the varietal purity in accordance with the requirements specified in Annex 3 of these Regulations.

19. Each year up to 1 June seed cultivators shall submit to the State Plant Protection Service an application, of a type approved by the Minister for Agriculture, for inspection of fields of winter crops and spring crops.

20. Inspection of fields, in accordance with methods approved by the Minister for Agriculture, shall be performed by inspectors of the State Plant Protection Service.

21. Before inspecting a field, a State Plant Protection Service inspector shall acquaint himself or herself with documents attesting to the quality of the seed and with entries in the record of field history.

22. Inspection of a field shall be conducted at least once during the vegetation period at such a development stage of the cultivated plants when the morphological features of the variety are most visible and the varietal purity can be determined most accurately, and when disease-infected plants can be recognised.

23. If, in conducting inspection of a field or of documentation regarding the seed sown, violations of these Regulations are determined or non-conformity of the planted field to the category of seed to be evaluated is determined, the category of seed shall be reduced to the conforming category. If it is possible to eliminate the deficiencies, inspection of the field shall be repeated pursuant to the instructions of the State Plant Protection Service inspector.

24. If a planted field fails to conform to the requirements prescribed in Chapter III of these Regulations, the planted field shall be considered to be unusable for cultivating seed and the harvest obtained shall not be included in further seed evaluation.

25. Planted fields of a variety not separated as seed-cultivation fields may be registered in accordance with methodology approved by the Minister for Agriculture. Planted fields of a variety shall be registered by inspectors of the State Plant Protection Service. The sample registration form approved by the Minister for Agriculture shall be used for registration.

V. Evaluation of Seed Quality

26. In order to evaluate seed quality, the State Plant Protection Service inspector shall take a sample of each processed seed lot.

27. A seed sample shall be taken from a homogeneous seed lot. If there is evidence that a seed lot is not sufficiently homogeneous and does not conform to the specifications of the International Seed Testing Association (ISTA), evaluation of the seed lot may be refused.

28. The weight of a seed lot from which a sample is taken is specified according to the following amounts: the weight of one seed lot of rye, wheat, barley, oats or triticale – not more than 25 000 kg; the weight of a buckwheat seed lot – not more than 10 000 kg; and the weight of a maize seed lot – not more than 40 000 kilograms. A 5% deviation is permitted from the specified maximum seed lot weight.

29. If a seed lot exceeds the weight specified in Paragraph 28 of these Regulations, it shall be divided into several seed lots according to the species.

30. In order to identify a cereal variety and to evaluate seed quality, the specified weight of a seed lot sample (except for the certified seed (C) category) is 2 000 g, and 1 200 grams for buckwheat. The specified weight of a seed sample for the certified seed category is 1 000 g, except in cases when the State Plant Protection Service requests 2 000 grams. For determination of moisture content of seed, the sample size is 300 g, and the sample shall be placed in hermetically sealed packaging.

31. A seed sample shall be divided into two parts. One part – 1 000 g (600 g for buckwheat) – is intended for the determination of seed quality characteristics (for example, purity, germination power); the second part – 1 000 g (600 g for buckwheat) – shall be provided for post-control of seed, which shall be performed in accordance with methods approved by the Minister for Agriculture. Seed samples shall be stored for at least one year – until the following year's sowing. The remaining portion of the post-control seed sample shall be stored long enough to fully ensure the evaluation of the sample.

32. The requirements specified for germination power, purity and content of other seed admixture are set out in Annex 4 of these Regulations; the requirements specified for admixture content of sclerotia *(Claviceps purpurea)* and smut *(Tilletia caries)* – in Annex 5 of these Regulations.

33. The moisture content specified for all seed categories shall not exceed 15%, but for seed stored for a year or more and for seed stored in unventilated metal containers – 14 per cent. For

seed of winter crops sown the year they are harvested, the permitted moisture content is up to 16 per cent.

34. If the seed germination power indicator determined in a repeat analysis fails to conform to the previously determined seed category indicators, the State Plant Protection Service shall take a new sample, evaluate the seed in accordance with the requirements for a full seed evaluation, and issue a document attesting to the seed quality that conforms to the new data.

35. If the germination power of seed from a seed lot of pre-basic or basic seed category as determined by analysis does not conform to the minimum seed germination power specified in Annex 4 of these Regulations, the seed, after receipt of a permit from the State Plant Protection Service, may be marketed with reduced germination power. It is mandatory that the label indicate in addition the seed germination power and the surname of the trader (name for a legal person) and address.

VI. Packaging of Seed

36. Seed packages shall be sealed or the seed shall be repackaged under the supervision of the State Plant Protection Service.

37. One package may contain up to 60 kg of seed. Packaging material shall be selected such as to ensure the preservation of seed quality and weight and to prevent the mixing of seed.

38. Based on a written request from a purchaser, the trader may sell packages (with a label) in which there is more than 300 kg seed.

39. Seed lots in a warehouse shall be placed in such a way that any packaged unit can be freely accessed and a sample taken.

VII. Labelling of Seed Packages

40. Seed package labels shall be strictly controlled by the State Plant Protection Service. The dimensions of labels shall be 110 x 67 millimetres. Their colour is prescribed in Annex 6 of these Regulations. Labels may be with a hole for string, with adhesive, or for sewing on. A label may be replaced with a seal that contains the content of the label.

41. When sealing a seed package, a label not previously used shall be attached externally and the information provided on it shall conform to the content prescribed in Annex 7 of these Regulations.

42. If a label with a hole for string is used, the attachment of the label shall have a seal placed on it.

43. The seed package shall be labelled or labelled repeatedly only under the supervision of the State Plant Protection Service. If a package is labelled repeatedly, the label shall indicate the month and year of repeated labelling and the authority responsible for resealing.

44. If the seed lot quality determined in the certification process does not conform to the requirements and cannot be attested with a seed certificate, the relevant seed lot labels shall be destroyed under the supervision of the State Plant Protection Service.

45. If seed is processed with biological agents, plant protection agents or chemicals, such shall be indicated on the label.

46. Prior to preparation of a seed mixture, the conformity of its components to the quality requirements of the relevant seed category shall be evaluated.

47. In the packaging and labelling of seed mixtures, the requirements prescribed in Chapters VI and VII of these Regulations shall be complied with. The information indicated on the label shall conform to the content prescribed in Annex 8 of these Regulations.

VIII. Marketing of Seed

48. Marketing of seed shall be permitted after it has been determined to be breeder, pre-basic, basic or certified seed respectively.

49. In Latvia the marketing of cereal and legume seed mixtures is permitted if the relevant varieties are included in the Catalogue of Plant Varieties of Latvia, and it does not contain notation regarding specific characteristics of the particular variety that do not permit the preparation of mixtures.

50. The requirements prescribed for marketing of seed shall also apply to storage of seed in order to sell, supply or transport the seed (with or without remuneration), if the seed is intended for commercial use by a third party.

IX. Registration of Seed Cultivators, Processors, Packers and Traders

51. The State Plant Protection Service shall register all seed cultivators, processors, packers and traders, and shall issue seed cultivator and trader registration certificates. Each seed cultivator, processor, packer and trader shall be issued a specific four-digit code. Its first two digits shall indicate the seed cultivator's address (district postal code); the other two digits – sequential number of the seed cultivator.

52. In order to register in the Register of Seed Cultivators and Traders, an application shall be submitted to the State Plant Protection Service. The application shall indicate the species and variety of cultured plants, the cultivation, processing, packaging and marketing of which the applicant wishes to undertake. A description of the material and technical basis required for the processing, packaging and marketing of seed and information concerning its ownership shall be attached to the application.

53. The seed cultivator shall maintain a field history register, which shall include a field placement diagram.

54. If the State Plant Protection Service has received a written submission from a seed cultivator, processor, packer or trader, or has determined that these Regulations have not been complied

with, the registration shall be annulled within a period of two weeks from receipt of the submission or preparation of a report regarding failure to comply with these Regulations.

X. Seed Documentation

55. The State Plant Protection Service, based on the results of field inspection and evaluation of seed samples, shall issue a seed quality attesting document to seed cultivators, processors, packers and traders registered in the Register of Seed Cultivators and Traders.

56. A document attesting to the quality of seed is a seed certificate. If the seed quality does not conform to the requirements of these Regulations, a certificate regarding the quality of the seed evaluation shall be issued. Depending on seed quality, the relevant document shall be issued within a period of three days after evaluation of the seed sample has been completed.

57. A seed certificate shall be issued if all the evaluation results indicators of the average sample from a seed lot conform to the requirements specified for the relevant seed category of the relevant species, and prior to that, inspection of the seed-cultivation field has been performed. A seed certificate is the basic document for the marketing of seed.

58. A certificate of seed quality evaluation shall be issued if even one of the indicators from a full seed lot evaluation fails to conform to the requirements specified for the relevant seed category, or if only some indicators have been evaluated (incomplete seed evaluation). The certificate mentioned may also indicate possibilities for improving seed quality (if such exist).

59. If, after harvesting and relevant processing, winter crop seed is intended for sowing the same autumn, a seed certificate may be issued based only on seed longevity indicators. In such case a special note shall be entered in the certificate (if all other seed quality indicators conform to the requirements specified for the relevant seed category). In determining the longevity of winter crop seed, an analysis of germination power shall also be performed. If the analysis shows a positive result, the seed certificate issued with a special note shall be exchanged for a new seed certificate.

60. The term of validity of a seed certificate, starting from the day the analysis of seed germination power is completed, shall be as follows:

60.1. six months for seed of all species, including their mixtures;

60.2. three months for seed infested with ticks; and

60.3. to the end of sowing winter crops for winter crop seed intended for use in the same autumn (for seed lots whose vital capacity indicators have been determined).

61. If it is desired to extend the seed certificate term of validity, a repeat inspection of the seed shall be performed prior to the expiry of the seed certificate term of validity. The seed sample taken for a repeat inspection shall be evaluated visually and only the germination power shall be determined, but for seed that has been infested with pests, germination power and pest infestation shall be determined.

62. If the seed germination power indicator, determined in a repeat analysis prior to expiry of the seed certificate term of validity, conforms to the requirements of the previously determined seed category, the State Plant Protection Service shall issue an annex to the seed certificate, which shall state the new term of validity for the seed certificate.

63. Seed cultivators and traders shall maintain a register of seed inventory in conformity with a sample approved by the Minister for Agriculture. All relevant seed processing operations and types of usage for all cereal species and varieties, stating the specific amount (in tons) of seed utilised for each activity shall be recorded in the register. The accuracy of entries shall be attested by the signature of the seed owner or a person authorised by him or her. For commercial transactions the buyer shall also be recorded.

64. Seed traders shall attest the seed quality with a copy of the seed certificate in which shall be recorded the amount of seed sold to specific purchasers.

65. If a buyer has acquired seed without a seed certificate or a label, or has not complied with the requirements for seed storage, pre-sowing processing or packaging as prescribed in these Regulations, the purchaser shall lose the right to express a complaint against the seed trader.

XI. Post-control of Seed in Test Fields

66. In order to confirm that varietal identity and purity is ensured and retained in the process of seed multiplication, post-control of seed shall be performed in test fields.

67. Post-control of seed shall be performed in accordance with Section 10 of the Seed and Planting Material Circulation Law.

68. Post-control of seed in test fields is mandatory for all winter and spring cereal crop seed categories that are to be multiplied. Post-control in test fields for certified second generation seed (C2) and rye (C1) seed lots shall be performed on not less than 10% of the total amount of such seed.

69. The State Plant Protection Service shall make public the post-control test-field evaluation results.

XII. Closing Provisions

70. These Regulations shall come into force on 1 June 2000.

71. State Seed Inspection forms and labels, samples of which have been approved by the Ministry of Agriculture, shall be used for certification of seed until 1 June 2001.

72. Until 1 June 2005, seed certificates for winter crop seed that is intended for sowing in the autumn of the year that it was harvested shall be issued on the basis of seed vital capacity indicators if they conform to the germination power requirements for the relevant seed category.

73. Until 1 June 2005, in performing inspection of fields of rye varieties, the quantity of plants that do not conform to the variety may not exceed the following indicators:

73.1. for growing basic seed, four plants per 30 m^2 of sown field; and

73.2. for growing certified seed, four plants per 10 m^2 of sown field.

74. Paragraphs 25 and 65 of these Regulations shall be in force until 1 June 2005.

75. Paragraph 59 of these Regulations shall come into force on 1 June 2005.

76. Annex 3, Paragraph three of these Regulations shall come into force on 1 June 2005.

77. The seed quality indicators specified in Annex 4, columns 5, 6, 7 and 9 of these Regulations shall come into force on 1 June 2005.

78. The seed quality indicators specified in Annex 5, column 3 of these Regulations shall come into force on 1 June 2005.

Prime Minister	A. Šķēle
Minister for Agriculture	A. Kalvītis

Annex 1
Cabinet Regulation No. 148
18 April 2000

Minimum Distances Between Planted Fields of Individual Varieties

1.	Between planted fields of foreign pollinating species or varieties (except buckwheat), if sowing:		
	1.1.	basic seed	300 m
	1.2.	certified seed	250 m
2.	Between self-pollinating varieties of triticale, if sowing:		
	2.1.	basic seed	50 m
	2.2.	certified seed	20 m
3.	Between planted fields of diploid and tetraploid rye varieties	500 m	
4.	Between planted fields of buckwheat	500 m	
5.	Between planted fields of rye hybrid basic seed if:		
	5.1.	male sterility is utilised	1 000 m
	5.2.	male sterility is not utilised	600 m
6.	Between planted fields of rye hybrid certified seed	500 m	

7. The minimum distances specified in Paragraphs 1, 2, 3, 4, 5 and 6 of this Annex may be not observed if there is sufficient protection against undesirable foreign pollination.

8. For self-pollinating species or varieties the spatial isolation distance between fields of other species or other categories of the same species and variety shall be such that mixing of seed during harvesting is not possible.

Minister for Agriculture A. Kalvītis

Annex 2
Cabinet Regulation No. 148
18 April 2000

Number of Diseased Plants Permitted in Seed-cultivation Fields

No.	Category of planted fields	In planted fields of wheat, barley, oats and triticale infected plants/100 m^2		In planted fields of rye and triticale infected plants/100 m^2	
		with loose smut	with hard smut	with stem smut	with black grain
1	Breeder and pre-basic category planted fields	1	1	1	5
2	Basic category planted fields	5	5	5	15
3	Certified category planted fields	15	15	15	20

Minister for Agriculture A. Kalvītis

Annex 3
Cabinet Regulation No. 148
18 April 2000

Requirements for Varietal Purity

1. The following varietal purity requirements are specified for oats *(Avena sativa L.)*, barley *(Hordeum vulgare L.),* and wheat *(Triticum aestivum L.)* (except hybrids):

No.	Category of seed	Minimum varietal purity %
1.1.	Basic seed	99.9
1.2.	First generation certified seed	99.7
1.3.	Second generation certified seed	99.0

2. The following are the stated requirements for varietal purity of triticale *(Triticosecale Wittm)* and self-pollinating varieties (except hybrids):

No.	Category of seed	Minimum varietal purity %
1.1.	Basic seed	99.7
1.2.	First generation certified seed	99.0
1.3.	Second generation certified seed	98.0

3. For rye *(Secale cereale L.)* and buckwheat *(Fagopyrum esculentum Moench)* the number of plants which based on visual evaluation are considered to be not conforming to the variety, may not exceed the following indicators:

3.1. for growing basic seed, one plant per 30 m^2 of planted field; and
3.2. for growing certified seed, one plant per 10 m^2 of planted field.

Minister for Agriculture A. Kalvītis

Annex 4
Cabinet Regulation No. 148
18 April 2000

Seed Quality Indicators

		Maximum admixture of seed of other species pieces/1 000 g						
No.	Cereal species and seed categories	Minimum germination power (pure seed) %	Minimum purity (weight) %	Other plant species together, not more than (col. 6, 7, 8 and 9)	Other cereal species	Non-cereal plant species	Wild oat *(Avena fatua, Avena sterilis)*, winter wild oat *(Avena ludoviciana)*, darnel *(Lolium temulentum)*	Wild radish *(Raphanus raphanistrum)*, corn-cockle *(Agrostemma githago)*
1	2	3	4	5	6	7	8	9
1.	Oats *(Avena sativaL.)*, barley *(Hordeum vulgare L.)* and wheat *(Triticum aestivum L.)*:							
	basic seed	85	99	8	2	6	0	2
	first and second generation certified seed	85	98	20	14	14	0	6
2.	Rye *(Secale cereale L.)*:							
	basic seed	85	98	8	2	6	0	2
	certified seed	85	98	20	14	14	0	6
3.	Triticale *(Triticosecale Wittm)*:							
	basic seed	80	98	8	2	6	0	2
	first and second generation certified seed	80	98	20	14	14	0	6
4.	Buckwheat *(Fagopyrum esculentum Moench)*:							
	basic seed	85	98	10	4	4	0	6
	first and second generation certified seed	85	98	25	8	10	0	15

5.	Maize *(Zea mays L.)*	90	98	0	0	0	0	0

Minister for Agriculture A. Kalvītis

Annex 5
Cabinet Regulation No. 148
18 April 2000

Amount of Sclerotia and Smut Admixture

The maximum permitted amount of sclerotia *(Claviceps purpurea)* or sclerotia parts, and of smut *(Tilletia caries)* admixture in seed samples (1 000 g) is as follows:

No.	Category of seed	Sclerotia *(Claviceps purpurea)* pieces	Smut or its parts in wheat seed % of weight
1.	Basic seed	2	--
2.	Certified seed (C1)	6	up to 0.002
3.	Certified seed (C2)	6	up to 0.004

Minister for Agriculture A. Kalvītis

Annex 6
Cabinet Regulation No. 148
18 April 2000

Colour of Labels

No.	Seed category or requirements specified for seed	Colour of label
1.	Breeder seed (BS)	Violet
2.	Pre-basic seed (PB)	White with a diagonal violet band
3.	Basic seed (B)	White
4.	Certified seed:	
4.1.	first generation certified seed (C1)	Blue
4.2.	second generation certified seed (C2)	Red
5.	Seed mixtures	Green
6.	Seed with reduced quality requirements	Brown
7.	Seed with only partial certification	Grey

Minister for Agriculture A. Kalvītis

Annex 7
Cabinet Regulation No. 148
18 April 2000

Content of Label or Seal

1. Name of these Regulations or Standards

2. Name of the certifying institution and state

3. Name of producing state

4. Registration number of producer

5. Seed lot number

6. The declared net weight of seed or number of seeds in package

7. Species

8. Variety

9. Category

10. Month and year packaged, or month and year most recent sample was taken

11. Notes on seed processing (dose of pesticides or additives)

Minister for Agriculture A. Kalvītis

Annex 8
Cabinet Regulation No. 148
18 April 2000

Content of Seed Mixture Label or Stamp

1. Name of these Regulations or Standards

2. Name of the certifying agency and state

3. Name of producing state

4. Registration number of producer

5. Seed lot number

6. The declared net weight of seed or number of seeds in package

7. Names of species, categories, varieties, and proportion by weight for each component (the Roman alphabet shall be used to denote varieties and species)

8. Month and year packaged, or month and year most recent sample was taken

9. Notes on seed processing (dose of pesticides or additives).

Minister for Agriculture A. Kalvītis

