

**Annex 1 Minimum Seed Certification Standards
1) Wheat**

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards			
Rotation (min. Years)	1	1	1
Isolation (min, meters)	5	5	5
Other varieties (max. %)	0.05	0.1	0.2
Other species (max. %)	0.05	0.01	0.01
Noxious weeds (max. %)	0	0.01	0.02
Seed Standard			
Pure seed (min. %)	97	96	95
Other crop seeds (max. %)	0.1	0.5	1
Weed seeds (max. %) ^a	1	1	1
Infected seeds (max. %)			
Germination (min. %)	85	85	85
Moisture content (max. %)			
a Wild oats			

Annex 1: continued.....

2) Barley

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards			
Rotation (min. Years)	1	1	1
Isolation (min, meters)	5	5	5
Other varieties (max. %)	0.05	0.1	0.2
Other species (max. %)	0	0.01	0.02
Noxious weeds (max. %)	0	0.01	0.01
Infected plants (max. %)	0	0.02	0.05
Loose smut			
Seed Standard			
Pure seed (min. %)	97	96	95
Other crop seeds (max. %)	0.1	0.5	1
Weed seeds (max. %) ^a			
Infected seeds (max. %)			
Germination (min. %)	85	85	85
Moisture content (max. %)			

Annex 1: continued.....**3) Rice**

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards			
Rotation (min. Years)	1	1	1
Isolation (min, meters)	5	5	5
Other varieties (max. %)	0.01	0.02	0.1
Other species (max. %)			
Noxious weeds (max. %)			
Red rice	0	0	0
Infected plants (max. %) ^a	0	0.01	0.02
Seed Standard			
Pure seed (min. %)	97	96	95
Other crop seeds (max. %)			
Weed seeds (max. %) ^a			
Red rice	0	0	0
Infected seeds (max. %)			
Germination (min. %)	85	85	85
Moisture content (max. %) ^b	15	15	15

a Blast per head

b Moisture content should be 15% during October and November

Annex 1: continued.....**4) Maize**

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards			
Rotation (min. Years)	1	1	1
Isolation (min, meters)	300	300	300
Other varieties (max. %)	0	0.1	0.5
Other species (max. %)			
Noxious weeds (max. %)			
Infected plants (max. %) ^a			
Seed Standard			
Pure seed (min. %)	97	96	95
Other crop seeds (max. %)			
Weed seeds (max. %)			
Infected seeds (max. %)			
Germination (min. %)	85	85	85
Moisture content (max. %)	15	15	15

Annex 1: continued.....**5) Maize (hybrid)**

Standards	Seed Classes	
	Foundation	Certified
Field Standards		
Rotation (min. Years)	1	1
Isolation (min, meters) ^a	300	300
Other varieties (max. %)		
Female parent	0	0.1
Male parent	0	0.1
Other species (max. %)		
Noxious weeds (max. %)		
Infected plants (max. %) ^a		
Seed Standard		
Pure seed (min. %)	97	95
Other crop seeds (max. %)		
Weed seeds (max. %)		
Infected seeds (max. %)		
Germination (min. %)	85	85
Moisture content (max. %)	15	15

a Time isolation of 30 days in acceptable

Annex 1: continued.....

6) Sorghum

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards			
Rotation (min. Years)	2	2	2
Isolation (min, meters)	400	300	200
Other varieties (max. %) Definite off-types	0.002	0.003	0.005
Doubtful off-types	0.005	0.01	0.1
Other species (max. %)			
Noxious weeds (max. %)			
Infected plants (max. %) ^a	0	0.1	0.2
Seed Standard			
Pure seed (min. %)	95	94	93
Other crop seeds (max. %)	0.01	0.05	1
Weed seeds (max. %)			
Infected seeds (max. %)			
Germination (min. %)	80	80	80
Moisture content (max. %)			

^a Kernel smut (*Sporisorium sorghi*)

Annex 1: continued.....

7) Sorghum (hybrid)

Standards	Seed Classes	
	Foundation	Certified
Field Standards		
Rotation (min. Years)	2	2
Isolation (min, meters) ^a	400	400
Other varieties (max. %) Definite off-types	0.002	0.005
Doubtful off-types	0.005	0.1
Other species (max. %)		
Noxious weeds (max. %)		
Infected plants (max. %) ^a		
Seed Standard		
Pure seed (min. %)	93	93
Other crop seeds (max. %)	0.01	1
Weed seeds (max. %)		
Infected seeds (max. %)		
Germination (min. %)	80	80
Moisture content (max. %)		
a Kernel smut (<i>Sporisorium sorghi</i>)		

Annex 1: continued.....**8) Sweet Sorghum**

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards			
Rotation (min. Years)	2	2	2
Isolation (min, meters)	400	300	200
Other varieties (max. %)	0.1	0.5	1
Other species (max. %)			
Noxious weeds (max. %)			
Infected plants (max. %)			
Seed Standard			
Pure seed (min. %)	95	94	93
Other crop seeds (max. %)	0	0	0
Weed seeds (max. %)	0	0	0
Infected seeds (max. %)			
Germination (min. %)	70	70	70
Moisture content (max. %)			

Annex 1: continued.....

9) Faba bean

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards			
Rotation (min. Years)	3	3	3
Isolation (min, meters)	200	200	150
Other varieties (max. %)	0.1	0.3	0.5
Other species (max. %)			
Noxious weeds (max. %) ^a	0.05	0.1	0.2
Infected plants (max. %)			
BBTMV ^b	0	0.5	2
BBSV ^c	0	0.5	2
Virus diseases (total)	0	0.5	2
Seed Standard			
Pure seed (min. %)	93	93	93
Other crop seeds (max. %)	0.3	0.3	0.3
Weed seeds (max. %)	1.5	1.5	1.5
Infected seeds (max. %) ^b			
Germination (min. %)	85	85	85
Moisture content (max. %)			
a <i>Orobanche crenata</i>			
b BBTMV = Broad Bean True Mosaic Virus			
c BBST – Board Bean Stain Virus			
NB Insect infestation of up to a maximum of 20% is allowed if seed is treated with pesticides and no live insects are present.			

Annex 1: continued.....

10) Chickpea

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards			
Rotation (min. Years)	2	2	2
Isolation (min, meters)	50	25	25
Other varieties (max. %)	0	0.01	0.1
Other species (max. %)	0	0.01	0.1
Noxious weeds (max. %) ^a	0.05	0.1	0.2
Infected plants (max. %) ^b	0	0.2	0.5
Seed Standard			
Pure seed (min. %)	95	94	93
Other crop seeds (max. %)	0	0.5	1
Weed seeds (max. %)			
Infected seeds (max. %)			
Germination (min. %)	85	85	85
Moisture content (max. %)			
<p>a <i>Orobanche crenata</i> b <i>Ascochyta rabiei</i></p>			

Annex 1: continued.....

11) Lentil

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards			
Rotation (min. Years)	1	1	1
Isolation (min, meters)	50	30	10
Other varieties (max. %)	0.1	0.2	0.5
Other species (max. %)	0	0.01	0.1
Noxious weeds (max. %) ^a	0.05	0.1	0.2
Infected plants (max. %) ^b	0	0.5	2
Seed Standard			
Pure seed (min. %)	95	94	93
Other crop seeds (max. %)	0.1	0.3	0.5
Weed seeds (max. %)			
Infected seeds (max. %)			
Germination (min. %)	85	85	85
Moisture content (max. %)			
<p>a <i>Orobanche crenata</i> b Pea mosaic virus</p>			

Annex 1: continued.....

12) Cowpea and pea

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards			
Rotation (min. Years)	2	2	2
Isolation (min, meters)	125	125	75
Other varieties (max. %)	0.1	0.02	0.04
Other species (max. %)			
Noxious weeds (max. %)			
Infected plants (max. %)	0	0	0.5
Seed Standard			
Pure seed (min. %)	97	96	95
Other crop seeds (max. %)	0	0.5	1
Weed seeds (max. %)			
Infected seeds (max. %)			
Germination (min. %)	70	70	70
Moisture content (max. %)			

Annex 1: continued.....

13) Linseed

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards			
Rotation (min. Years)	1	1	1
Isolation (min, meters)	500	500	300
Other varieties (max. %)	0.02	0.05	0.1
Other species (max. %)			
Noxious weeds (max. %) ^a	0	0.01	0.01
Infected plants (max. %)			
Seed Standard			
Pure seed (min. %)	95	94	93
Offtypes	0	0.2	1
Other crop seeds (max. %)	0	0.5	1.5
Weed seeds (max. %)	0	0	0.5
Infected seeds (max. %)			
Germination (min. %)	85	85	85
Moisture content (max. %)			

^a *Lepidium sativum*

Annex 1: continued.....

14) Sunflower

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards			
Rotation (min. Years)	1	1	1
Isolation (min, meters)			
Open pollinated	3000	3000	2000
Hybrids	3000		2000
Other varieties (max. %)	0	0.1	0.5
Offtypes			
Female parent	4/1000		4/1000
Male parent	4/1000		4/1000
Open pollinated Varieties	5/1000		5/1000
Fertile Plants in female parent	4/1000		4/1000
Other species (max. %)			
Noxious weeds (max. %)			
Infected plants (max. %) ^a	0	0.2	0.5
Seed Standard			
Pure seed (min. %)	95	94	93
Offtypes	0	0.5	1
Other crop seeds (max. %)	0	0.5	1
Weed seeds (max. %)			
Infected seeds (max. %) ^b			
Germination (min. %)	85	85	85
Moisture content (max. %)			

a Each for *Scloretina* and *Botrytis*

b *Botrytis cinerea*

Annex 1: continued.....

15) Alfalfa (Lucerne)

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards			
Rotation (min. Years)	4	3	2
Isolation (min, meters)			
Different classes	10	10	10
Non-certified	500	300	100
Other varieties (max. %)	0	0.25	1
Other species (max. %)	0	0	0
Noxious weeds (max. %) ^a	0	0	0
Infected plants (max. %)	0	0	0
Seed Standard			
Pure seed (min. %)	95	94	93
Offtypes	0	0	0.5
Other crop seeds (max. %)	0.1	0.5	1.5
Noxious Weed seeds (max. %) ^a	0	0	0
Infected seeds (max. %)	0	0	0
Germination (min. %)	85	85	85
Moisture content (max. %)			
^a <i>Cuscuta planiflora</i>			

Annex 1: continued.....

16) Egyptian clover (Berseem)

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards			
Rotation (min. Years)	5	3	2
Isolation (min, meters)			
Commercial varieties	500	400	300
Different certified varieties	300	200	100
Other varieties (max. %)	0	0.1	0.2
Other species (max. %)			
Noxious weeds (max. %) ^a	0	0	0
Infected plants (max. %)			
Seed Standard			
Pure seed (min. %)	95	94	93
Offtypes	0	0.3	1
Other crop seeds (max. %)	0.1	0.5	1.5
Noxious Weed seeds (max. %) ^a	0	0	0
Infected seeds (max. %)			
Germination (min. %)	85	85	85
Moisture content (max. %)			
^a <i>Cuscuta planiflora</i>			

Annex 1: continued.....**17) Cotton**

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards			
Rotation (min. Years)	2	2	2
Isolation (min, meters)	1000	1000	500
Other varieties (max. %)	0	0	0
Other offtypes	0	1/35000	1/21000 ^a
Other species (max. %)	0	0	0
Noxious weeds (max. %) ^a			

Seed Standards ^b

a Standard for certified seed 2 is 1/7000

b Seed standard are defined annually by decree, but pure live seed (PLS) should not be less than 70%

Annex 1: continued.....**18) Sugar beet**

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards	No field standards		
Seed Standard			
Pure seed (min. %)	95	94	93
Other crop seeds (max. %)	0	0.5	1.5
Weed seeds (max. %)			
Infected seeds (max. %)			
Germination (min. %)	60	60	60
Moisture content (max. %)			

Annex 1: continued.....

19) Beans

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards			
Rotation (min. Years)	1	1	1
Isolation (min, meters)	125	125	125
Other varieties (max. %)			
Definite offtypes	0	0.2	0.4
Doubtful types	0	0.1	0.4
Other species (max. %)			
Noxious weeds (max. %) ^a			
Infected plants (max. %)			
Anthracnose	0	2	5
Bean Yellow Mosaic	0	0	0.5
Bacterial brown spot and Bacterial wilt	0	0	0
Blight	0	0	0
Clover and bean mosaic	0	0	1
Seed Standard			
Pure seed (min. %)	97	96	95
Other crop seeds (max. %)	0	0.5	1
Weed seeds (max. %) ^a			
Infected seeds (max. %)			
Germination (min. %)	75	75	75
Moisture content (max. %)			

Annex 1: continued.....

20) Cabbage

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards	No Field Standard		
Rotation (min. Years)			
Isolation (min, meters)			
Other varieties (max. %)			
Other species (max. %)			
Noxious weeds (max. %) ^a			
Infected plants (max. %)			
Seed Standard			
Pure seed (min. %)	97	96	95
Other crop seeds (max. %)	0	0.5	1
Weed seeds (max. %) ^a			
Infected seeds (max. %)			
Germination (min. %)	70	70	70
Moisture content (max. %)			

Annex 1: continued.....

21) Carrot

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards	No Field Standard		
Rotation (min. Years)			
Isolation (min, meters)			
Other varieties (max. %)			
Other species (max. %)			
Noxious weeds (max. %) ^a			
Infected plants (max. %)			
Seed Standard			
Pure seed (min. %)	92	91	90
Other crop seeds (max. %)	0.5	1	3
Weed seeds (max. %) ^a			
Infected seeds (max. %)			
Germination (min. %)	55	55	55
Moisture content (max. %)			

Annex 1: continued.....**22) Cucumber**

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards			
Rotation (min. Years)	2	2	2
Isolation (min, meters)	1500	1500	1000
Other varieties (max. %)			
Definite offtypes	0	0	0.2
Doubtful types	0	0.2	0.5
Other species (max. %)	0	0	0
Noxious weeds (max. %)			
Infected plants (max. %)			
Bacterial diseases	0	0	0
Bean Yellow Mosaic Virus	0	1	2
Cucumber Mosaic Virus	0	1	2
Dead Spot Melon Virus	0	1	5
Squash Mosaic Virus	0	1	3
Seed Standard			
Pure seed (min. %)	95	94	93
Other crop seeds (max. %)	0	0.5	1.5
Weed seeds (max. %) ^a			
Infected seeds (max. %)			
Germination (min. %)	65	65	65
Moisture content (max. %)			

Annex 1: continued.....**23) Eggplant**

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards			
Rotation (min. Years)	3	3	3
Isolation (min, meters)	1000	1000	1000
Other varieties (max. %)			
Definite offtypes	0	0.2	0.4
Doubtful types	0	0.1	0.2
Other species (max. %)	0	0	0
Noxious weeds (max. %)			
Infected plants (max. %)			
Brown Rot and Blights	0	0	0
Clover Mosaic virus	0	0.5	2
Cucumber Mosaic Virus	0	0.5	2
Egg plant Mosaic Virus	0	1	3
Potato Virus Y	0	0.5	2
Tobacco Mosaic Virus	0	0.5	2
Seed Standard			
Pure seed (min. %)	95	94	93
Other crop seeds (max. %)	0.1	0.5	1.5
Weed seeds (max. %) ^a			
Infected seeds (max. %)			
Germination (min. %)	65	65	65

Annex 1: continued.....**24) Onion**

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards			
Rotation (min. Years)	2	2	2
Isolation (min, meters)	5000	3000	3000
Other varieties (max. %)			
Offtypes bulbs	0.5	0.5	0.5
Offtype plants	0.1	0.1	0.1
Other species (max. %)			
Noxious weeds (max. %)			
Infected plants (max. %)			
Onion Yellow Dwarf Virus	0	0.1	0.1
Seed Standard			
Pure seed (min. %)	95	94	93
Other crop seeds (max. %)	0	0.5	1.5
Weed seeds (max. %) ^a			
Infected seeds (max. %)			
Germination (min. %)	70	70	70
Moisture content (max. %)			

Annex 1: continued.....

25) Pepper

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards			
Rotation (min. Years)	3	3	3
Isolation (min, meters)	1000	1000	750
Other varieties (max. %)			
Definite offtypes	0	0.2	0.4
Doubtful types	0	0.1	0.2
Other species (max. %)	0	0	0
Noxious weeds (max. %)			
Infected plants (max. %)			
Bacterial diseases	0	0	0
Clover Mosaic Virus	0	0.5	2
Cucumber Mosaic Virus	0	0.5	2
Egg plant Mosaic Virus	0	1	3
Potato Virus Y	0	0.5	2
Tobacco Mosaic Virus	0	0.5	2
Seed Standard			
Pure seed (min. %)	95	94	93
Other crop seeds (max. %)	0.1	0.5	1.5
Weed seeds (max. %) ^a			
Infected seeds (max. %)			
Germination (min. %)	55	55	55

Annex 1: continued.....

26) Potato

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards			
Rotation (min. Years)	3	3	3
Isolation (min, meters)	1000 (North-West) – 500 (south-East)		
Other varieties (max. %)	0.1	0.1	0.1
Other species (max. %)	0	0	0
Noxious weeds (max. %)			
Infected plants (max. %)			
Apparent Virus Diseases			3
Bacterial wilt or Brown rot			0
Black Leg			0.1
Stem canker & Black scurf			2
Coloration of vessels			0.5
Seed Standard			
Potato tuber moth			0.5
Brown rot			0
Common scab & Black scurf			1
Dry rot			0.5
Powdery Scab			1
Silver Scurf			5
Other Fungal diseases			0.5
Root Knot nematodes			0
Virus diseases			1
Physiological disorders			
Coloration of vessels			0.5
Hollow heart & black scurf			1
Cracks			1
Secondary Growth			1

Annex 1: continued.....

27) Tomato

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards			
Rotation (min. Years)	3	3	3
Isolation (min, meters)	125	100	50
Other varieties (max. %)			
Offtypes bulbs	0	0.2	0.4
Offtype plants	0	0.1	0.2
Other species (max. %)	0	0	0
Noxious weeds (max. %)			
Infected plants (max. %)			
Bacterial diseases	0	0	0
Virus diseases	0	0.5	2
Seed Standard			
Pure seed (min. %)	95	94	93
Other crop seeds (max. %)	0.1	0.2	0.5
Weed seeds (max. %) ^a			
Infected seeds (max. %)			
Germination (min. %)	70	70	70

Annex 1: continued.....

28) Watermelon

Standards	Seed Classes		
	Foundation	Registered	Certified
Field Standards			
Rotation (min. Years)	2	2	2
Isolation (min, meters)	1000	1000	1000
Other varieties (max. %)			
Definite offtypes	0	0	0.2
Doubtful types	0	0	1.5
Other species (max. %)	0	0	0
Noxious weeds (max. %)			
Infected plants (max. %)			
Bacterial diseases	0	0	0
Bean Yellow Mosaic Virus	0	1	2
Cucumber Mosaic Virus	0	1	2
Melon Dead Spot	0	1	5
Squash Mosaic Virus	0	1	3
Seed Standard			
Pure seed (min. %)	97	96	95
Other crop seeds (max. %)	0	0.5	1.5
Weed seeds (max. %) ^a			
Infected seeds (max. %)			
Germination (min. %)	65	65	65