

Twinning projekt EU

"Dalje jačanje kapaciteta u fitosanitarnom sektoru iz oblasti sredstava za zaštitu bilja, zdravlja bilja, sjemena i sadnog materijala, uključujući fitosanitarne laboratorije i fitosanitarnu inspekciju"













TWINNING BA/12/IB/AG 01 Sarajevo, 2016/06/13-17



CREA-SCS - ITALY

ITALIAN SEED CONTROL AND CERTIFICATION SYSTEM





Alessandra Sommovigo



THE ORGANISATION OF SEED CERTIFICATION SYSTEM

SEED CERTIFICATION PROCEDURES

OFFICIAL CONTROLS

SEED CERTIFICATION AND CONTROLS

AGRICULTURAL SPECIES

- FIELD INSPECTION
- · LABELLING
- · SAMPLING
- · LAB TESTING
- POST CONTROL

VEGETABLE SPECIES (standard category)

POST CONTROL CHECKS

SEED TESTINGS

PHYSICAL ANALYSIS: Purity

Other seeds

Moisture

PHISIOLOGICAL ANALYSIS: Germination

GENETIC ANALYSIS: Varietal identity

Varietal purity

GMO analysis

PHYTOSANITARY TESTS:

Pathogens that can be transmitted by seed



SEED PRODUCTION:

BREEDER

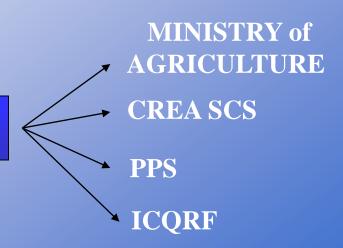
SEED MOLTIPLICATION FARMER

SEED COMPANY

CONTROL AGENCIES

MARKETING

FARMER





EU DIRECTIVES

Dir. 66/40 CEE 2002/54/CE

Dir. 66/401/CEE

Dir. 66/402/CEE

Dir. 66/403/€EE 2002/56/CE

Dir. 69/208/CE 2002/57/CE 2002/68/CE

Dir. 70/458/CEE 2002/55/CE

Dir. 70/457/CF- 2002/53/CF

Dir. 2004/117/CF

MOD. Dir. 66/401/CEE- Dir. 66/402/CEE-Dir. 2002/54/CE- Dir. 2002/55/CE- Dir. 2002/57/CE beet seed

fodder seed

cereals

seed potatoes

oil and fibre plants

vegetables seed

common catalogue

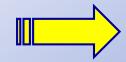
control under official

supervision and equivalence





SEED COMPANIES



Trade permission

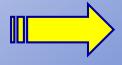
SEED and PROPAGATION MATERIAL



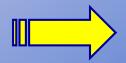
National List of varieties



Minimum Requirements



Labelling



Sealing and packaging



SEED COMPANIES











FROM FARMERS TO SEED COMPANIES



Varieties Catalogue

Seed which is marked within the EC has to be one of the listed varieties





D.U.S. TESTS

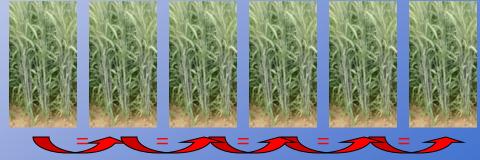
DISTINCTNESS



UNIFORMITY



STABILITY



USE (only for agricultural species)



Control of agricultural seeds

Field Inspections



 Seed-cleaning and processing inspections



Seed sampling



Laboratory Tests



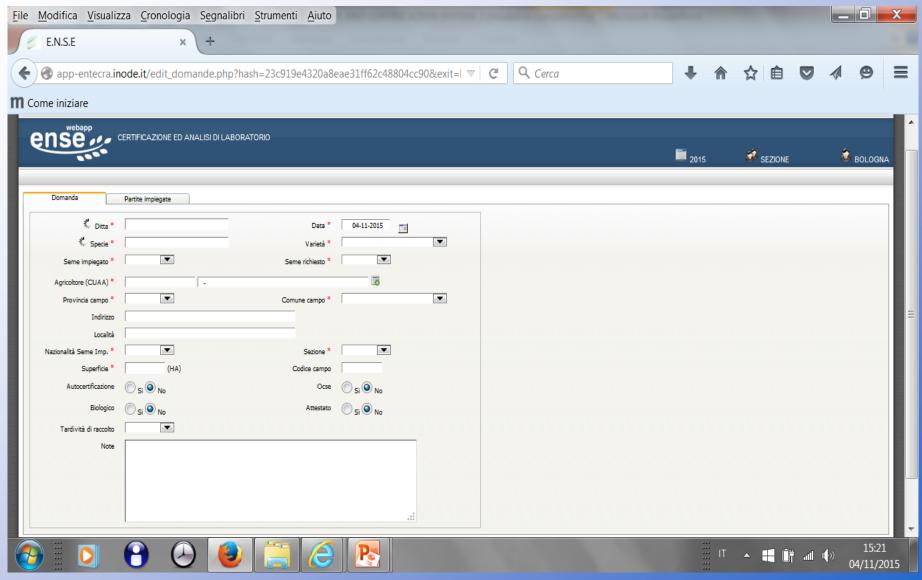


SEED CERTIFICATION PROCESS FIELD INSPECTIONS

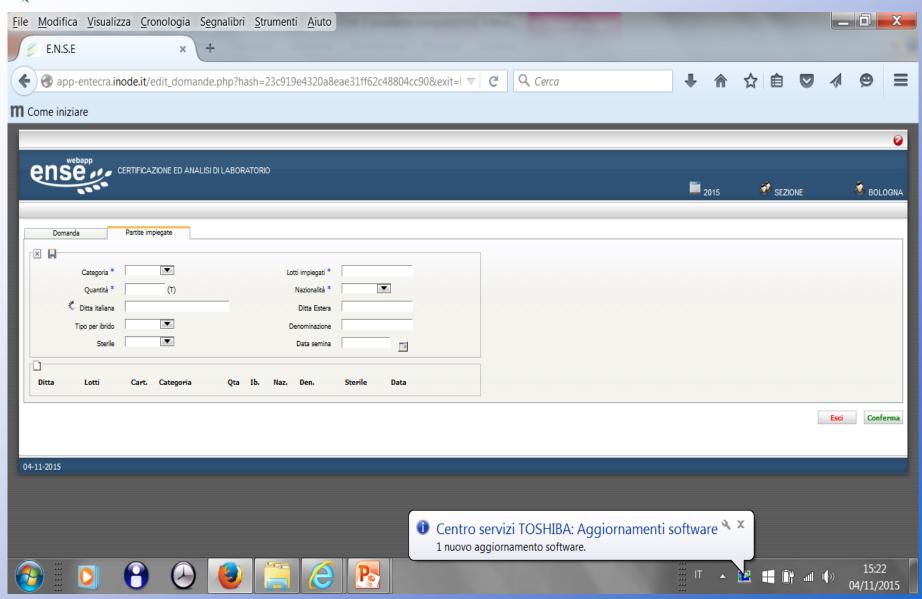
APPLICATION TO THE SEED CERTIFICATION AGENCY ON SPECIFIC APPLICATIONS FORM:

- IDENTIFICATION OF THE APPLICANT
- · ADDRESS OF THE FARM WHERE THE SEED CROP IS LOCATED
- SPECIES VARIETY
- SURFACE
- · CATEGORY AND LOT NUMBER OF SEED USED
- CATEGORY OF SEED TO BE PRODUCED

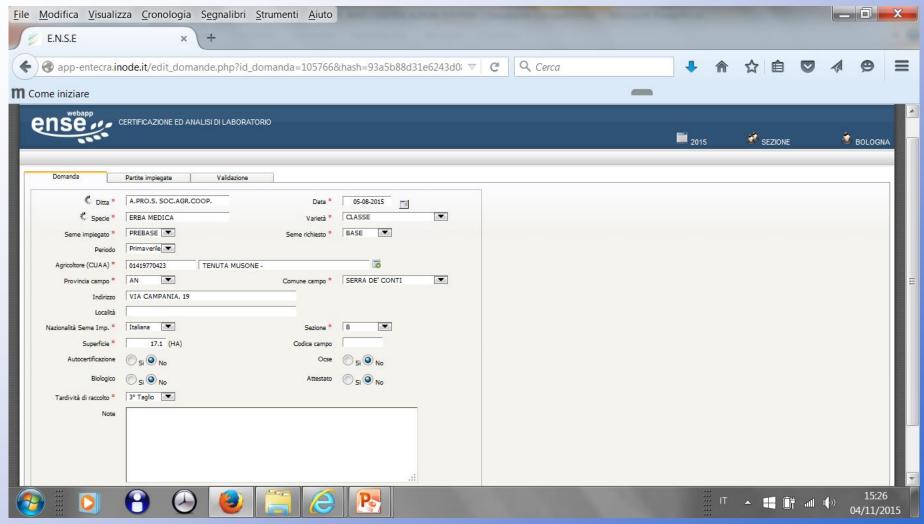




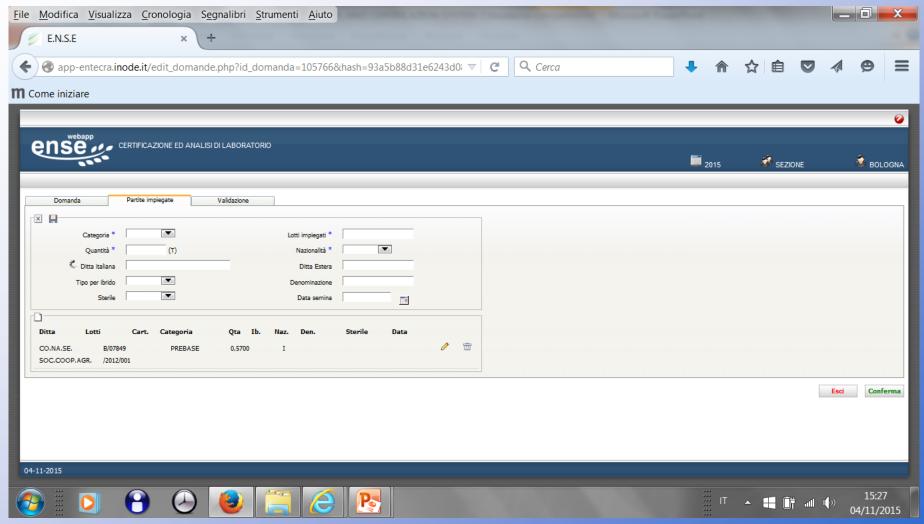




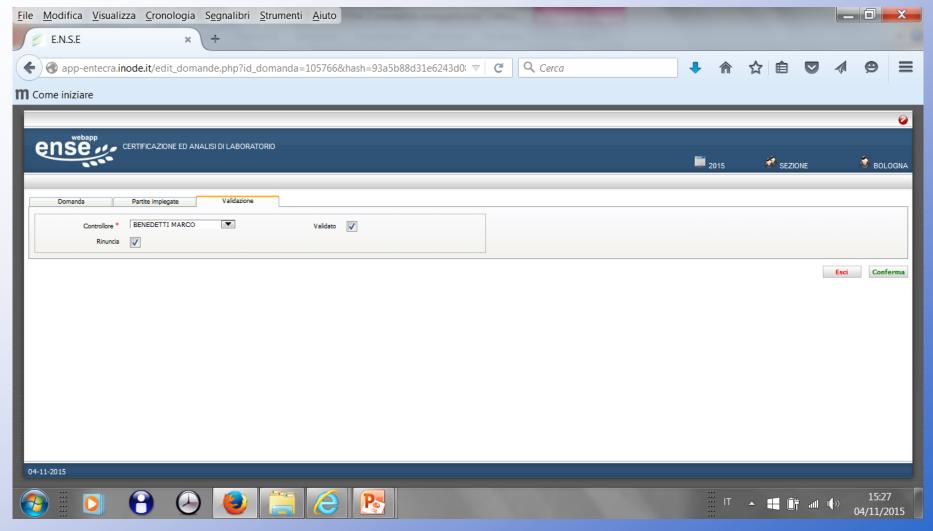












NR.

FAENZA.

MARTELL

F0800

0:49

2015

MAG.

FOSCO MARITELLIALIUNALE SEMENTI ELETTE AUTORIZZIZIONE DI PRODUZIONE SEMBITIERA DELLA

Via Emilia Levanie, 46 - 49018 FAENZA (RA)

REGIONE EMILIARON MORA SERVIZIO FITOSANTIARIO AUT. REG. N. 13 ISCR. REG. PRODUTTORIN DO05805/03/95 (Sezione di Bologna)

ALLEGATO 4

Tel. 0545 634177 - Fax 0545 634407 - Cell. 335 6241359 DITTA RICHIEDEN MRIFEC 35814 D458E

AUTOCERTIFICAZIONE SI D NO D

CRA Registro Ufficiale

VARIETA' LA BELLA CAMPAGNOLA SPECIE: SEME DI ERBA MEDICA

Prot. N: 0035528 del 08/06/2015



INDIRIZZO COMUNE SUP. SEME IMPLEGATO AGRICOLTORE N. DI TELEFONO CODICE CUAA (UBICAZIONE PROV. BA (LOTTO-PESO) COLTURE) (RESIDENZA) I'S RIPNE RSS GFR46 EOLC573 G ROSSI GIAN FRANCO CESENA 4.22 Fe CESENA VIA FORMIGNANO 2679 (FC) SSSLURLOEARC 777F SASSI OLIVIERO CESENA 2,53 I'm RIP. NE FORMIGNANO VIA MONTECAVALLO 85/A Fe. BASAD DIROMAGNA VIA DANTE AUSTIGNAMA BAGNODI ROMAGNA TRIPLE 713 FCC FNC 71 B 21 A 565 V FACCIANI FRANCESCO FP T. RIP. NE CESENA VIA FAUSTO COPA 305(FE) MERBATO SARACENO 3.18 NFR MCL83M 2165731 ONO FRI MARCELLO FP.

Timbro e firma



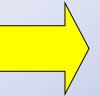
FOSCO MARTELLI

AUTORUZAZIONE DI PRODUZIONE SELENTERA DELLA REGIDIE EMILIA ROMAGNA SERVIZIO FITOSAINTAHIO AUT REC. N. 131SOR REG. PRODUTTORIN DOSSOSTES

Via Emila Levente, 45 - 48018 FAENZA (RA) Tel. 0546 634177 - Fax 0546 634407 - Cell. 335 6241359 P. IVA: 00056050396 Cod. Fise MRT FSC 35R14 D453E



SEED CATEGORIES:



Control of generation

Breeder Seed

(not certified seed)



Pre-basic (46, 36, 26)

NORMATIVA C.E. ENSE - I Sementi di base NP 032200053824

BE LOCIO DI CONTROLLO DI C

Basic

Certified seed 1st generation





Certified Seed 2nd generation









Time of inspection:

When the higher number of charactistics is expressed (e.g. flowering for cereals)

Number of inspections:

- At least one inspection for open pollinated variety
 - At least two or three inspections for hybrid variety

Field inspections

Aim:

- assessment of varietal identity and purity and
- · presence of other species (weeds or not)
 - · plant health conditions
- · distance from another seed multiplication of the same species but different variety
 - · estimation of potential production



FIELD INSPECTION

- 1. General conditions of the crop
 - 2. Varietal identification
 - 3. Isolation distances
 - 4. Varietal purity
 - 5. Presence of other species
- 6. Presence of diseases trasmitted by seed
 - 7. Extimation of potential production
 - 8. Report

1. GENERAL CONDITION OF THE CROP

 A general evaluation is carried out by observing the vegetative development of the plants and the agronomic and pedologic characteristics of the crop

and

 The incidence of negative conditions (damage by wind or rain, hail damage, drought, abortion of flowers etc.), varietal contamination, weeds, other species, disease

2. VARIETAL IDENTIFICATION

✓ Conformity to the variety declared by the applicant

 The inspector confirms varietal correspondence by comparison with the characteristics described in the official description of the variety. FRUMENTO DURO : INDOR

SCHEDA DESCRITTIVA

Denominazione botanica

: Triticum durum Desf. : EUROGEN - Piazza Armerina (EN) : PRO.SE.ME. - Piazza Armerina (EN) : EUROGEN - Piazza Armerina (EN) Costitutore Responsabile conservazione in purezza

Rappresentante in Italia Sigla rappresentativa della varietà all'iscrizione Codice M.I.P.A.F.

: FD 272 : 011835 Anno d'iscrizione al registro nazionale italiano : in corso Ente che ha effettuato la prova d'iscrizione : E.N.S.E.

Località di svolgimento della prova Periodo della prova Data e riferimento documento UPOV : Tavazzano (LO) : 2007-08 e 2008-09 : CPVO-/TP/120/2 Final 2003

PVO	N° Nazionale	Carattere	Classe d'espressione	N° classe	Note
21330107	100000000000000000000000000000000000000	COLEOPTILE :			
1	1	Colorazione antocianica	debole	3-4	
2	2	PIANTA: Portamento	semieretto	2	
		PIANTA: Frequenza di piante			
3	3	con la foglia terminale ricurva	molto bassa / bassa	2-3	-
		SPIGA : EPOCA DI EMERGENZA			data = 24/04/2009
4	4	(1° spighetta visibile sul 50 % delle piante)	molto precoce	- 1	test di riferimento Duilio = 26/04/2009
5	- 5	FOGLIA TERMINALE : Glaucescenza guaina	forte / molto forte	8	
		FOGLIA TERMINALE :			
6	6	Glaucescenza lembo (pagina inferiore)	forte	7	1
7	7	CULMO: Pubescenza nodo superiore	assente o molto debole	1	
		CULMO : Glaucescenza stelo			
8	8	(ultimo internodo)	tendente molto forte	8-9	
9	9	SPIGA : Glaucescenza	forte	7-8	
					misura media = cm. 81,3
10	10	PIANTA : ALTEZZA (incluse ariste)	media	5	test di riferimento Duilio = cm. 83,6
		ARISTE ALL'APICE DELLA SPIGA :			
11	11	Lunghezza rispetto alla spiga	più lunghe	3	
-	12	SPIGA : Pigmentazione antocianica delle antere	assente o molto debole	1	
	1-	GLUMA INFERIORE : Forma	The state of the s	_	
12	13	(sulle spighette mediane)	allungata	5	1
	10	GLUMA INFERIORE : Forma della	and the same of th		
13	14	spalla (sulle spighette mediane)	elevata	4	
13	14	GLUMA INFERIORE : Larghezza	Cicvata	-	
14	15	della spalla (sulle spighette mediane)	stretta	3	
14	13	GLUMA INFERIORE : Lunghezza del	Stictta	-	-
15	16	mucrone (sulle spighette mediane)	media	5	
10	10	GLUMA INFERIORE : Forma del	da diritto a leggermente	-	
16	17	mucrone (sulle spighette mediane)	inclinato	2	
10	1.7	GLUMA INFERIORE : Estensione	incinato	-	
17	18	pubescenza esterna (sulle spighette mediane)	assente	1	
	10	PAGLIA : Spessore (in sez. trasversale tra	ussellic	1	
	19	la base della spiga e il nodo sottostante)	sottile	3	1/4 piena
19	20	ARISTE : Colore	bruno	2-3	medio / medio-chiaro
		SPIGA : Lunghezza (escluse ariste o barbe)	media	5	misura media = mm. 65.8
20	21			1	misura media = mm. 03,0
21	22	SPIGA : Colore (a maturazione)	bianca	2	
	23	SPIGA : Forma	a bordi paralleli	- 2	
22	24	SPIGA : Compattezza		6	micuro media – mm. 36 5
	24	(misura 10 internodi centrali)	semicompatta	5	misura media = mm. 26,5
23	25	SEME : Forma	semi-allungata	3	
24	200	SEME : Lunghezza peli dell'estremità	la series		
24	26	(vista dorsale)	corti	3	
25	27	SEME : Colorazione al fenolo TIPO DI SVILUPPO (Alternatività)	medio-lieve primaverile	3	bruno medio-chiaro giunge pienamente a maturazione

Nella pagina seguente sintesi descrittiva degli anni di prova della varietà in oggetto, confrontata con altre varietà conosciute

33

3. ISOLATION DISTANCES (m)

SPECIES Pre-basic 1st and 2nd Generation and Certified Seeds and Basic **Durum wheat, wheat,** 8 barley Triticale (autogamous) **50** 20 Triticale (allogamous) 300 **250** Alfa alfa (> 2 ha) $100 (1^{st} G) - 50 (2^{nd} G)$ 100 Sunflower (hybrid 1500 **750** varieties) **Sunflower (OP varieties) 750 500** 200 (without buffers) Mayze 200

The homogeneity of the seed crop

A variety has to be sufficiently homogeneous depending on sexual or vegetative reproductive systems

- Autogamous species
- Allogamous species

"Off-type" plants: individuals that differs from the same variety by one or more varietal characteristics

Homogoneity is evaluated by calculating the incidence of the off-types (autogamous species)

The origin of the off-types can be traced to the genetic constitution of the varieties and contamination by other varieties due to inadeguate production techniques (sowing, re-sowing the same variety, treshing, transport and processing).

Off-type (OT):

- 1. Disjunctions
- 2. Fluctuations
 - 3. Mutations
- 4. Natural hybrids
- 5. Other varieties of the same species

Mutations caused during pairing of homologous chromosomes.

E.g.: expression of parental phenotype in progeny

Variability in the genetic matrix.

E.g.: colouration intensity which is further accentuated by particular environmental conditions

Modification of the hereditary material which induces changes in varietal characteristics (genetic mutations – chromosomal mutations).

% cross with cultures of different varieties

The higher is the sequence of the multiplication cycles of a variety, the greater is the possibility that off-types reduce the varietal purity of a variety.

Varietal purity standards
AUTOGAMOUS SPECIES

E.g.: Durum wheat - Wheat - Barley

Pre-basic and basic	999,5 ‰
Certified 1st generation	999,0 ‰
Certified 2nd generation	997,0 ‰

Varietal purity standards
ALLOGAMOUS SPECIES
(open pollination)

Crops shall have sufficient varietal identity and varietal purity

GENERAL RULES:

- > 1 OT in 30 m2 for the production of BASIC seeds
- > 1 OT in 10 m2 for the production of CERTIFIED seeds

Varietal purity standards
ALLOGAMOUS SPECIES
(hybred)

Crops shall have sufficient varietal identity and sufficient varietal purity and, in the case of inbred varieties, sufficient varietal identity and varietal purity with respect to the varietal characteristics

As for hybrids, the provisions apply also to characteristics of the components, including male sterility and restoration of fertility

5. PRESENCE OF OTHER SPECIES

Specific impurities

(weeds and cultivated species)

A high incidence of weeds and other species, whose seeds are not easily eliminated during seed-cleaning is not tollerated.

6. PRESENCE OF DISEASES

- √ The presence of plants infected with severe diseases that are transmitted via seeds, is tolerated to a degree depending on the seed species.
 - ✓ The presence of other diseases is evaluated by taking into consideration production estimates and the possibility of any interference in the evaluation of morphological and physiological characters.

7. EVALUATION OF SEED PRODUCTION

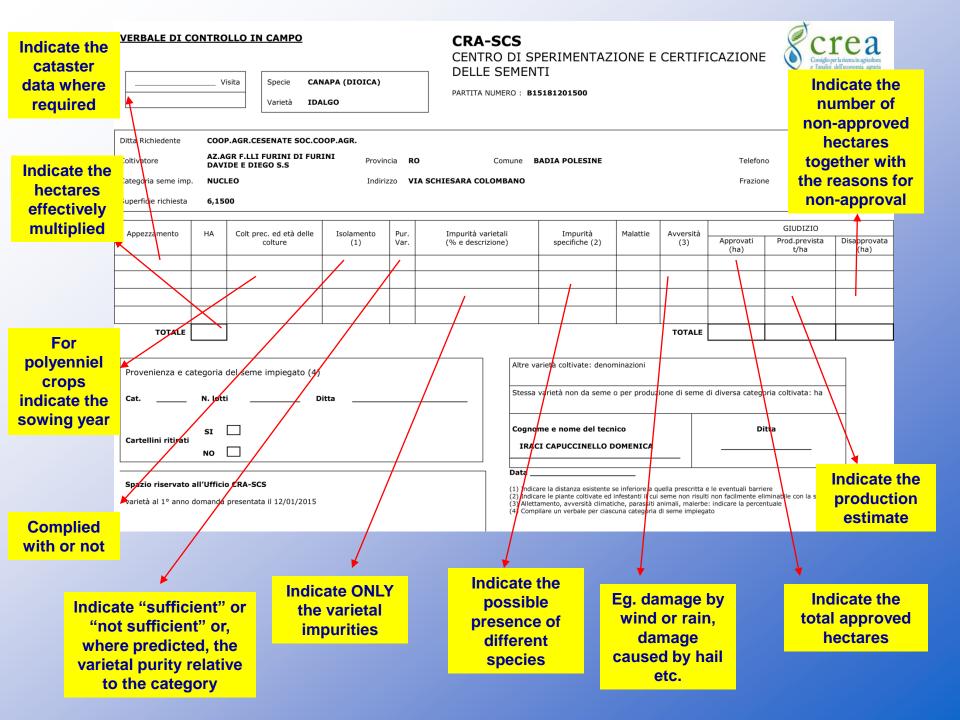
It depends on the general conditions of the crop (vegetative development, deseases, agronomic characteristics, varietal characteristics etc.)

8. REPORT

Field inspection report

- ·Administrative aspects
 - ·Formal aspects
- ·Preliminary conditions
 - ·Technical aspects
 - ·Final conclusions

The report is a formal and technical document, which must be compiled with care and it must objectively describe the condition of the crop observed during the inspection.



VERBALE DI CONTROLLO IN CAMPO

CRA-SCS

CENTRO DI SPERIMENTAZIONE E CERTIFICAZIONE **DELLE SEMENTI**



Visita

Specie CANAPA (DIOICA) **IDALGO**

PARTITA NUMERO: B15181201500

COOP.AGR.CESENATE SOC.COOP.AGR. Ditta Richiedente

Varietà

AZ.AGR F.LLI FURINI DI FURINI Coltivatore Provincia RO

DAVIDE E DIEGO S.S

NUCLEO

Indirizzo VIA SCHIESARA COLOMBANO

Telefono Frazione

Superficie richiesta 6,1500

Categoria seme imp.

Appezzamento	НА	Colt prec. ed età delle	Isolamento	Pur.	Impurità varietali	Impurità	Malattie	Avversità (3)	GIUDIZIO		
, ppezzamento		colture	(1)	Var.	Impurità varietali (% e descrizione)	Impurità specifiche (2)			Approvati (ha)	Prod.prevista t/ha	Disapprovata (ha)
TOTALE		TOTALE						TOTALE			



Altre varietà coltivate: denominazioni

BADIA POLESINE

Stessa varietà non da seme o per produzione di seme di diversa categoria coltivata: ha

Cognome e nome del tecnico

Ditta

IRACI CAPUCCINELLO DOMENICA

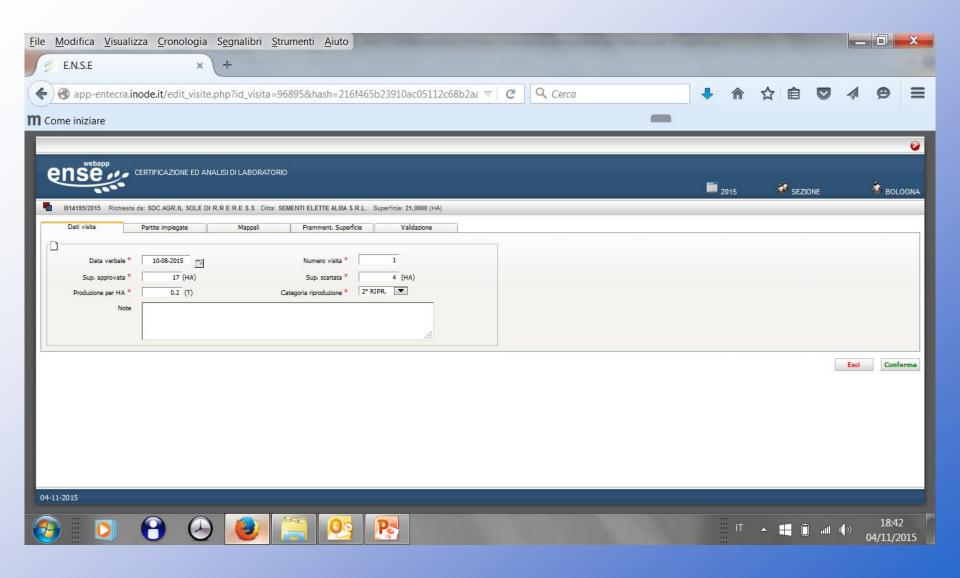
(1) Indicare la distanza esistente se inferiore a quella prescritta e le eventuali barriere

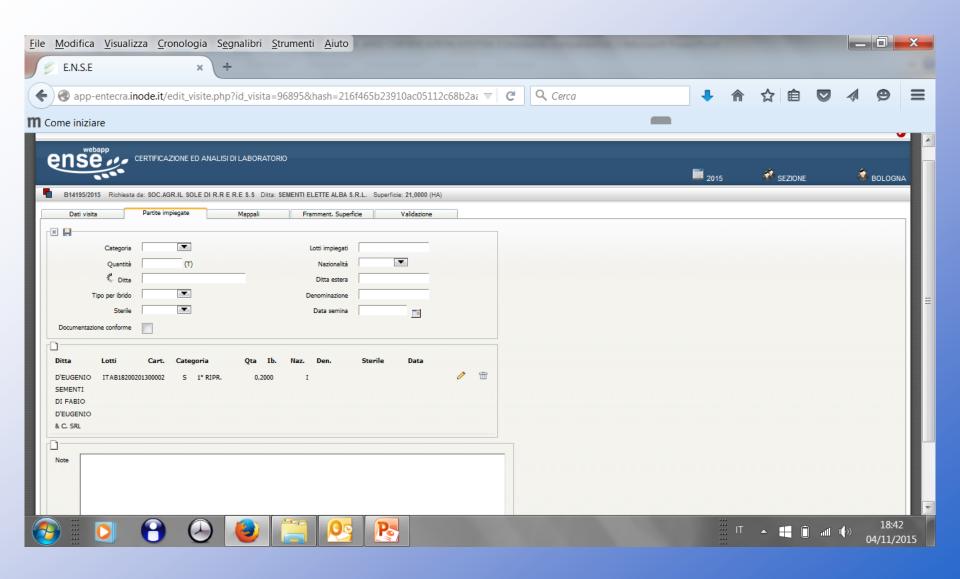
- (2) Indicare le piante coltivate ed infestanti il cui seme non risulti non facilmente eliminabile con la selezione meccanica
- (3) Allettamento, avversità climatiche, parassiti animali, malerbe: indicare la percentuale
- (4) Compilare un verbale per ciascuna categoria di seme impiegato

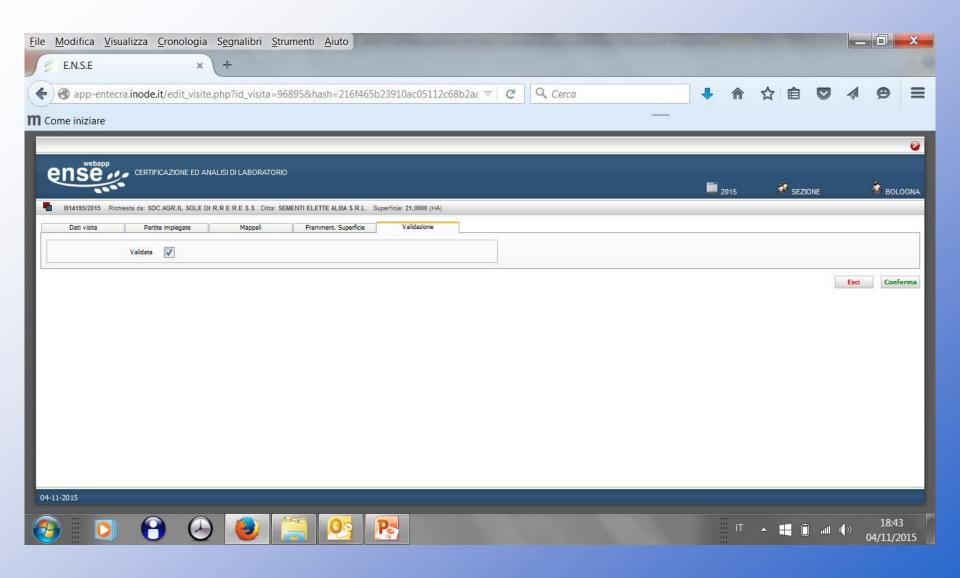
Indicate the category of the seeds being used

> Indicate the lot number/s of the seeds being used

Indicate the sales company of the seeds being used













DECD SEED SCHEME OECD SEED SCHEME SYSTEME OCDE POUR LES SEMENCES YSTEME OCDE POUR LES SEMENC ENSE - Via U. Bassi, 8 MILANO I ENSE - Via U. Bassi, 8 MILANO I category CERTIFIED SEED 2nd GEN. category CERTIFIED SEED reference n° I reference nº I species species cultivar cultivar category Nº 052600006152 032400052928

OECD SEED SCHEME SYSTEME OCDE POUR LES SEMENCES MY JAG GENOEM DE L'IA U. Bassi, 8 MILANO I NOT FINALLY CERTIFIED SEED species cultivar/hybrid category reference n° I country of production declared weight kg date of sealing Nº 052800020003

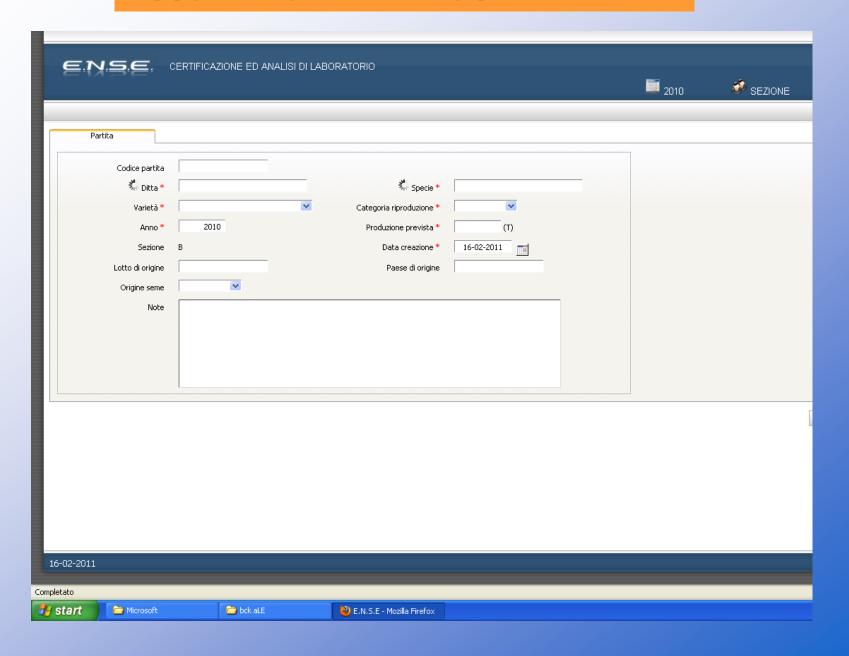
WE CONTROL:

- ·TRADE PERMISSION
 - PACKAGING and LABELLING

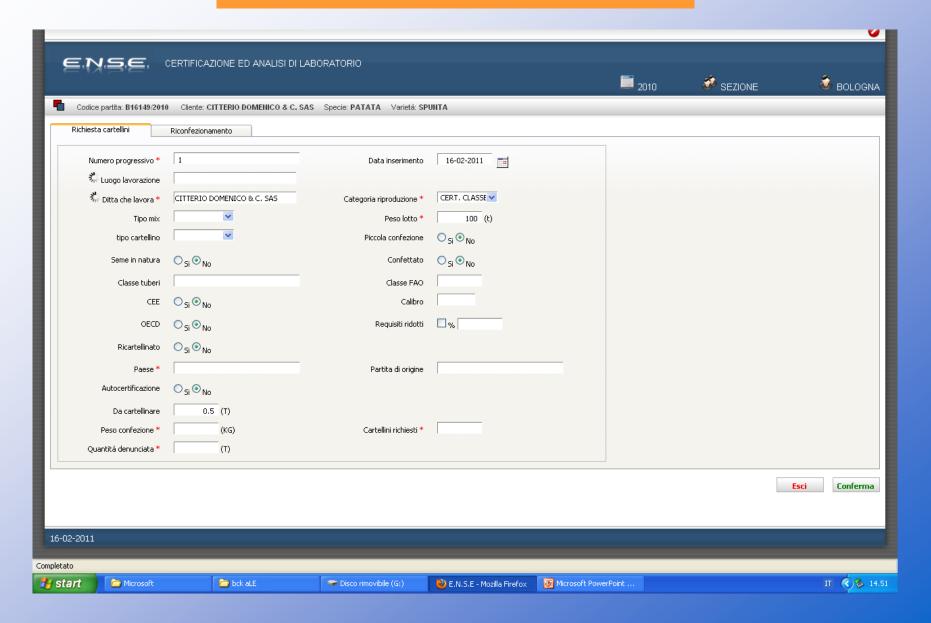
AND WE DRAW

• SEED SAMPLES
FOR LAB TEST
AND POST
CONTROL PLOTS

SEED PRODUCTION DECLARATION



LABELS APPLICATION FORM





PACKAGING and LABELLING CONTROL



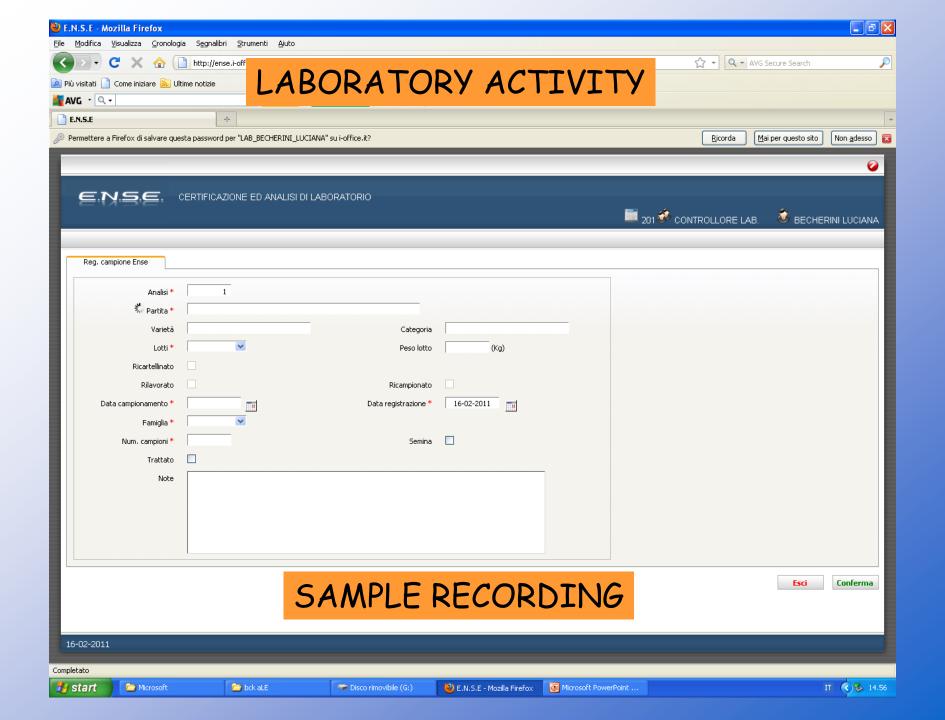


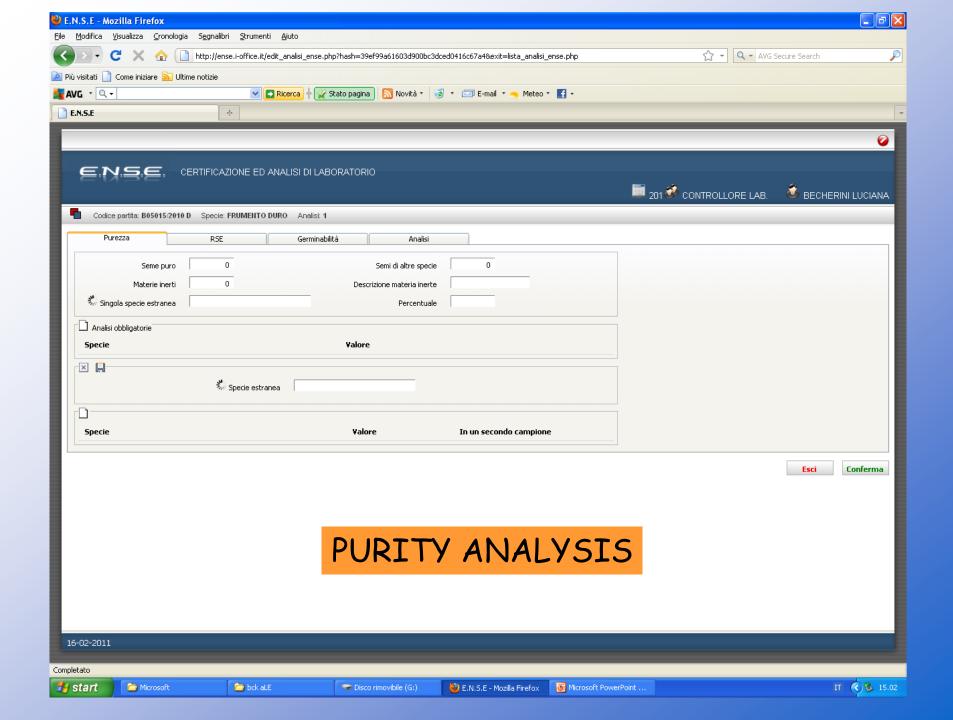


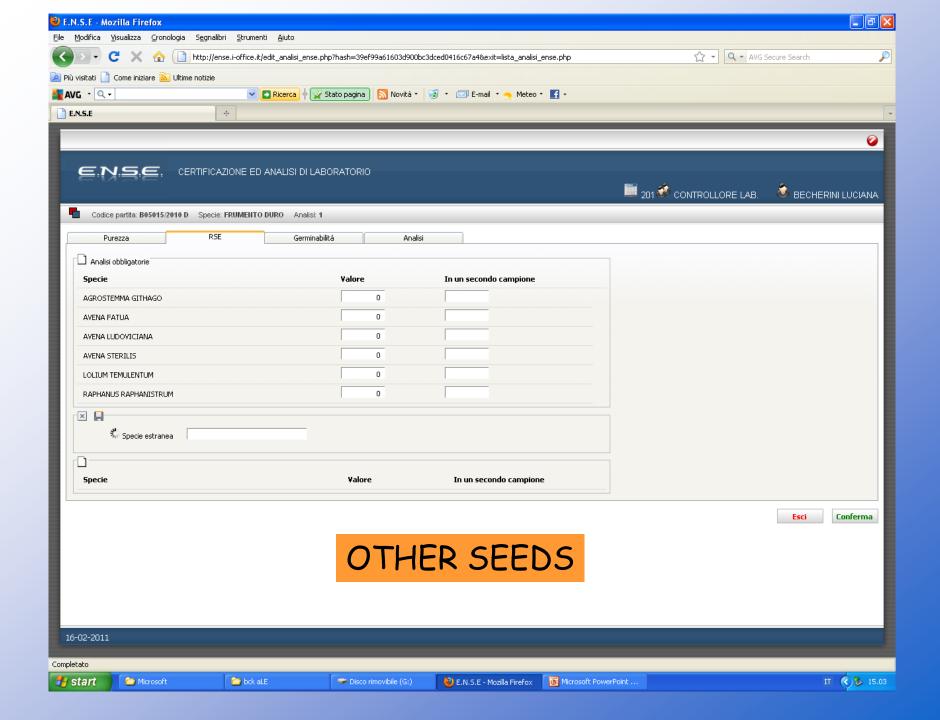
САМРІС	ONE SEI	NZA V/	ALOF	RE	
ENTE NAZIONALE DELLE SEMENTI ELETTE					
LE DELLE SEM				. Data	
E NAZIONAL	Specie	Ditta	Comune		
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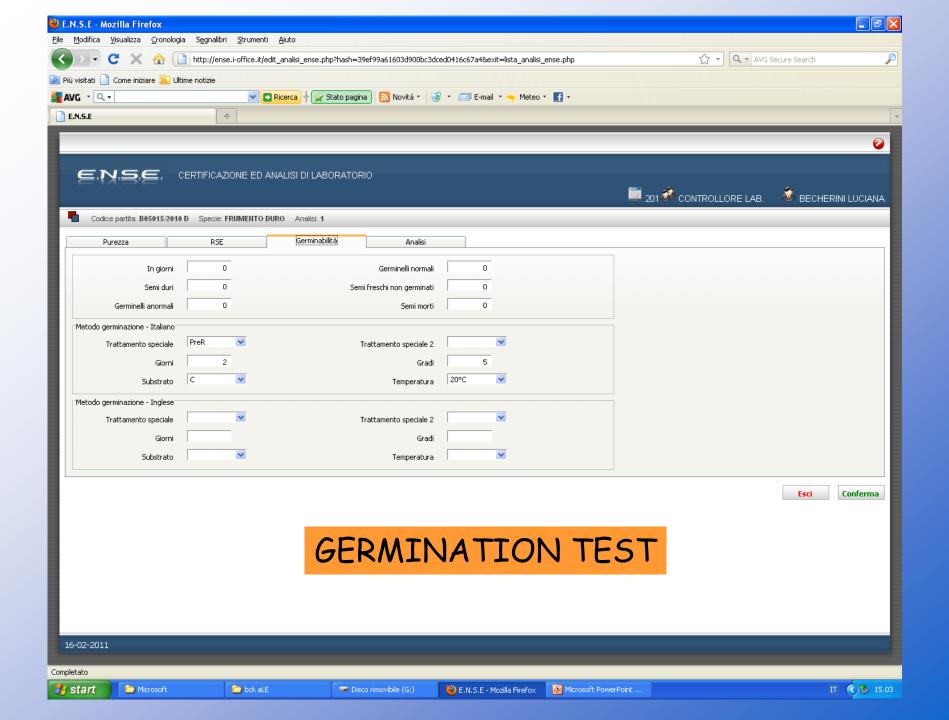
SEED SAMPLING FOR:

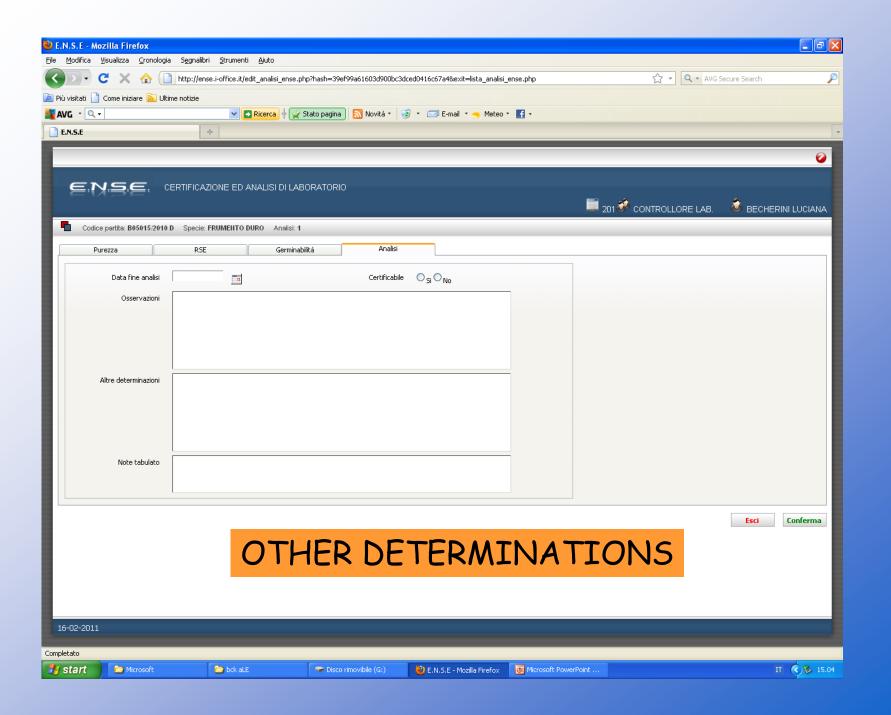
LAB TESTS
CONSERVATION
POST CONTROL

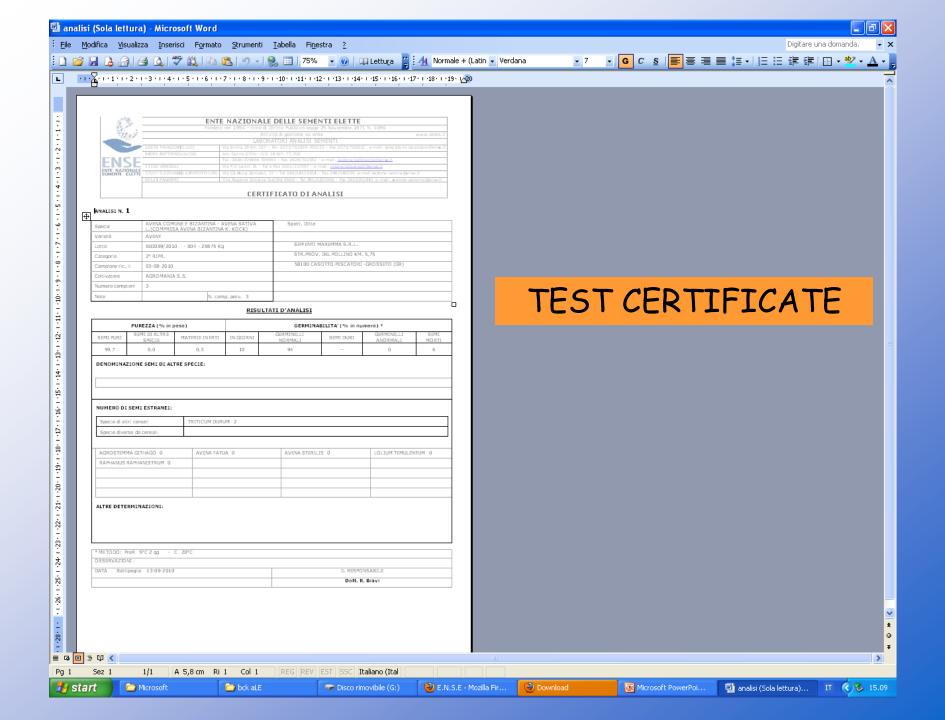


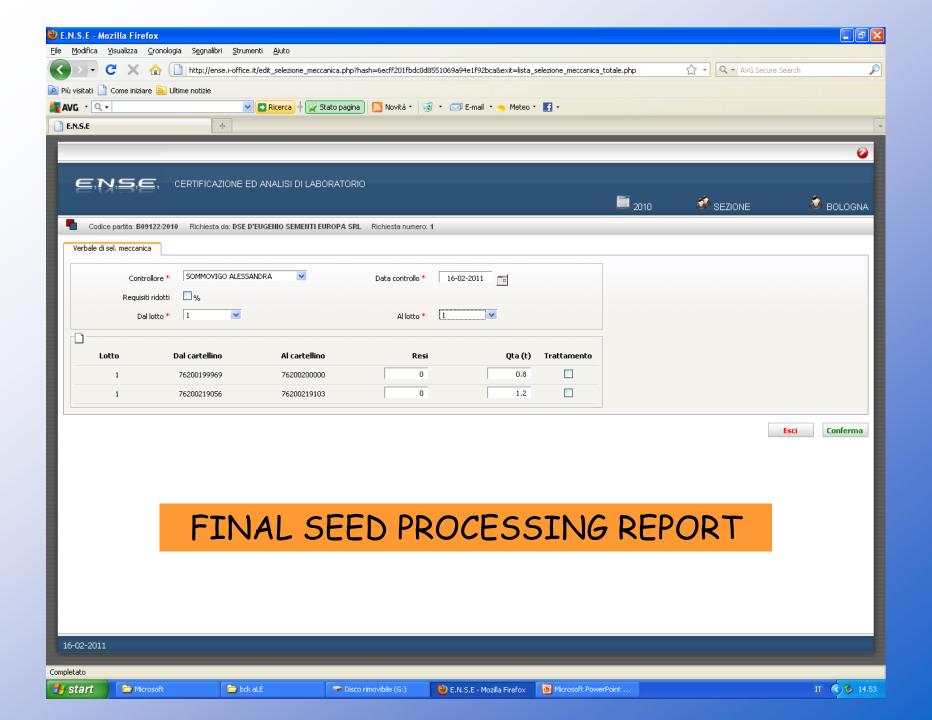














TRAINING COURSES ARE REQUIRED

Training courses must be provided to make the Inspectors adequately familiar with seed control subjects

TRAINING COURSE



Seed legislation

NATIONAL, EC and OECD SEED MARKETING LEGISLATIONS





OECD SEED SCHEMES

OECD Schemes for the Varietal Certification or the Control of Seed Moving in International Trade

EC SEED LEGISLATIONS

Dir. 2002/54/CE	on the marketing of beet seed
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Dir. 66/401/CEE on the marketing of fodder plant seed

Dir. 66/402/CEE on the marketing of cereal seed

Dir. 2002/56/CE on the marketing of seed potatoes

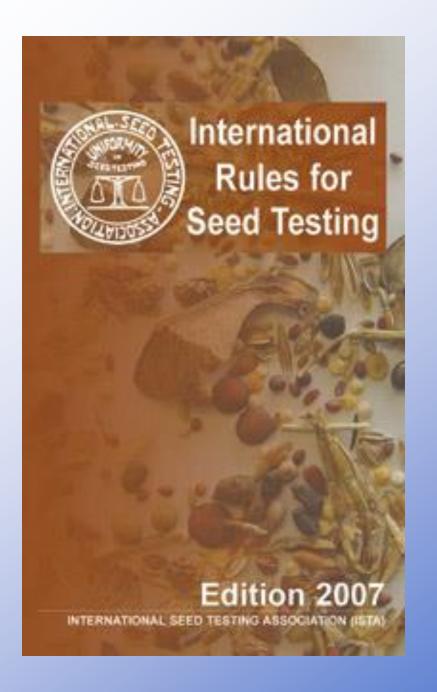
Dir. 2002/57/CE on the marketing of seed of oil and

fibre plants

Dir. 2002/55/CE on the marketing of vegetable seed

Dir. 2002/53/CE on the common catalogue of varieties

of agricultural plant species



I.S.T.A.

The ISTA Rules for Seed Testing provide standardized definitions and methods to be used in evaluating seeds.

They define the methods which must be used for the issuance of ISTA certificates by accredited laboratories.

Verify of the theorical and practical knowledge

After training course, it's mandatory to pass an examination on theorical knowledge (legislations etc.) and practical knowledge (application of the legislations on field inspections and on seed processing control).





TRAINING COURSE

