

BA/12/IB/AG 01 Further strengthening of capacities of phytosanitary sector in the fields of plant protection products, plant health and seeds and seedlings, including phytosanitary laboratories and phytosanitary inspections

The OECD Seed Schemes

Pier Giacomo Bianchi

Chairperson of the OECD Seed Schemes Designated Authorities

Since 1958 the OECD Seed Schemes have provided a consistent and operational legal framework for varietal certification of seed moving in international trade

The objective of the OECD Schemes is to encourage the production and use of seed of consistently high quality in participating countries

The OECD Seed Schemes facilitate the international movement of certified seed through the adoption of standards and common definitions, and the harmonization of procedures for the varietal certification of seed that ensures quality and reduces technical barriers to trade and transaction costs.

Global certification system adopted for international trade in seed.

To achieve this objective would require the full involvement of private and public sectors, while relating these developments more closely to changes in agricultural and trade policies in Member countries.

The added values of implementing the OECD Seed Schemes, as a quality assurance system governed by a regulatory framework and implemented by an independent agency:

- ensure farmers access to guaranteed quality seed (high germination capacity, lower sowing density, minimum weeds)
- minimize the impact on the environment by calibrating a sustainable strategy of using nitrogen and agro-pharmaceutical products

- improve crop productivity (yield and quality)
- enhance transparency along the supply chain providing traceability
- contribute to food security by ensuring higher overall production
- boost export of seed and foodstuffs

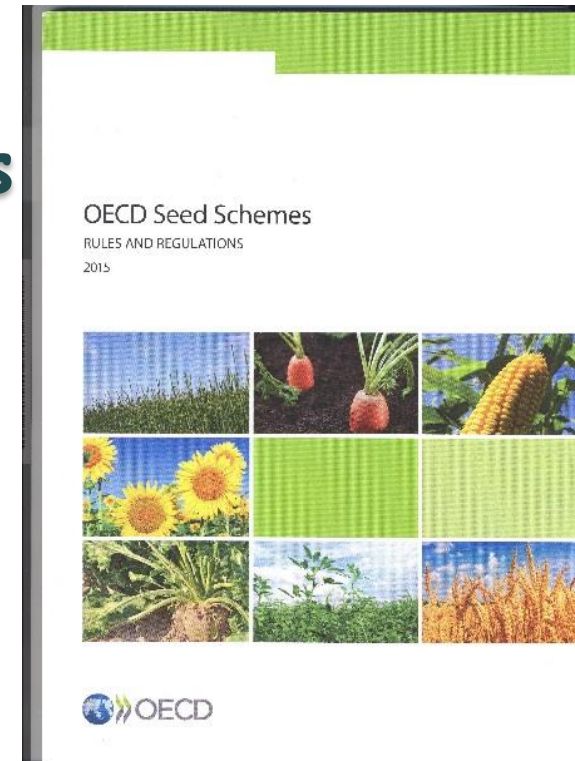
- improve crop productivity (yield and quality)
- enhance transparency along the supply chain providing traceability
- contribute to food security by ensuring higher overall production
- boost export of seed and foodstuffs

- facilitate trade by improving market access, thanks to harmonised certification procedures and use of internationally recognised labels
- play a role in the international market
- enhances cooperation between countries by setting internationally acceptable standards

- enhance co-operation between public and private sectors
- provide a global platform for sharing of information, experience and best practices between countries
- contribute to prevent technical barriers to trade
- support innovation by promoting the use of improved varieties

OECD Seed Schemes Rules and Regulations 2015

- Provide the fundamental framework Principles & procedures
 - Methods of operation
 - Rules for accession of new member countries



- OECD List of Varieties
 - OECD Coordinating Centre (NIAB) -
Manages the OECD List
 - 200 species - 59.600 varieties listed
- OECD On-Line List of Varieties
 - Easy access on line
(www.oecd.org/tad/seed)

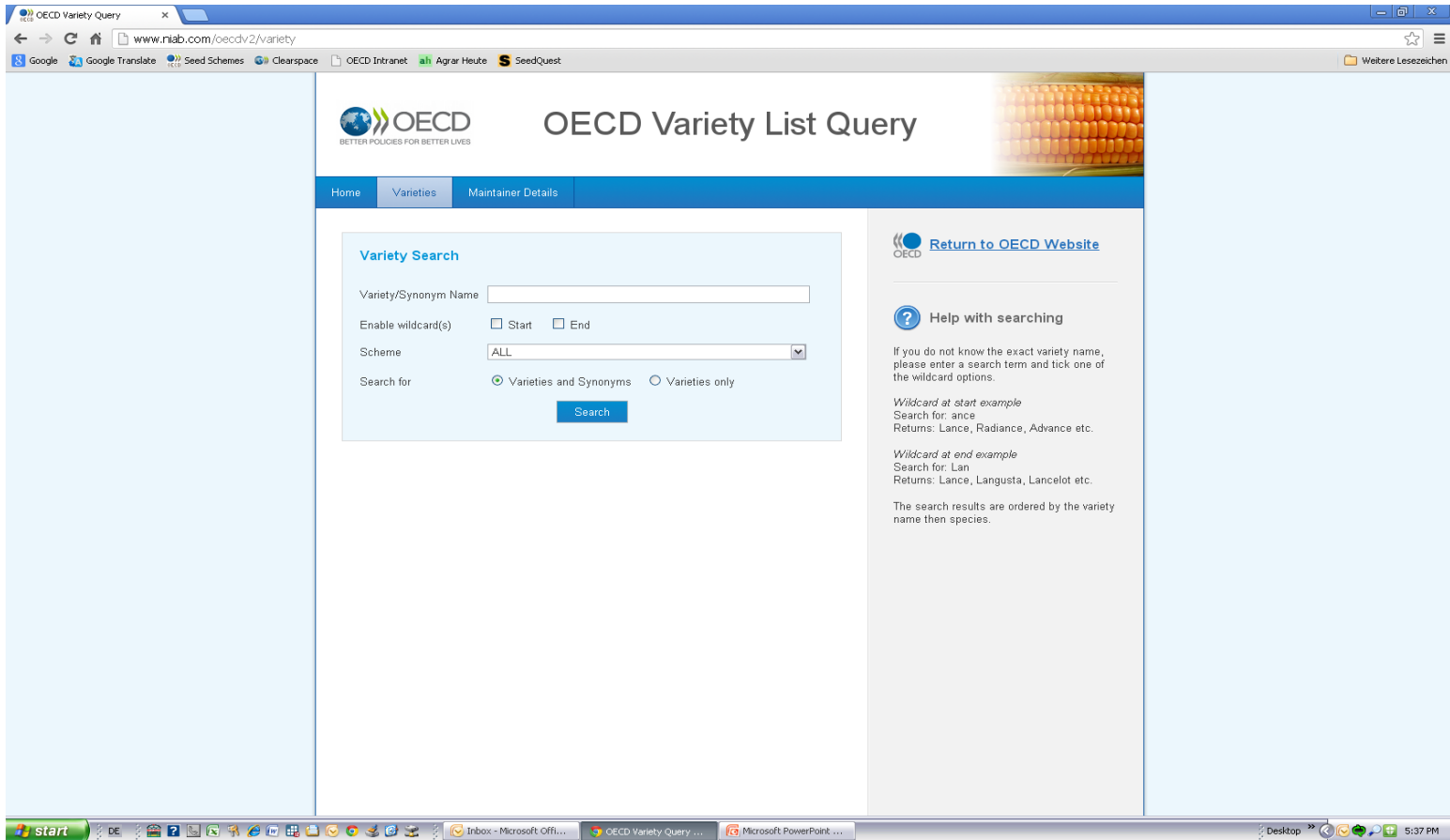
OECD SEED SCHEMES
List of Varieties Eligible for Seed Certification
2012/2013

SYSTÈMES DES SEMENCES DE L'OCDE
Liste des variétés admises à la certification des semences
2012/2013



- **List of varieties is published twice a year (January, July)**
- **Online version is updated on a monthly basis**

www.oecd.org/tad/seed

A screenshot of a web browser displaying the "OECD Variety List Query" page. The browser's address bar shows the URL "www.riab.com/oecdv2/variety". The page features the OECD logo and the title "OECD Variety List Query". A navigation menu includes "Home", "Varieties", and "Maintainer Details". The main content area is titled "Variety Search" and contains a search form with the following fields: "Variety/Synonym Name" (text input), "Enable wildcard(s)" (checkboxes for "Start" and "End"), "Scheme" (dropdown menu set to "ALL"), and "Search for" (radio buttons for "Varieties and Synonyms" and "Varieties only"). A blue "Search" button is located below the form. To the right of the search form, there is a link "Return to OECD Website" and a "Help with searching" section. The help section includes instructions on using wildcards, with examples: "Wildcard at start example" (Search for: ance, Returns: Lance, Radiance, Advance etc.) and "Wildcard at end example" (Search for: Lan, Returns: Lance, Langusta, Lancelot etc.). It also states: "The search results are ordered by the variety name then species." The browser's taskbar at the bottom shows the Windows Start button, system tray icons, and open applications including "Inbox - Microsoft Off...", "OECD Variety Query ...", and "Microsoft PowerPoint ...". The system clock shows "5:37 PM".

The OECD Seed Schemes in a nutshell

7 Schemes:

- Grass & Legume seed
- Crucifer seed and other oil and Fibre Species
- Cereal Seed
- Sugar Beet and Fodder beet seed
- Subterranean clover and similar species
- Maize & Sorghum seed
- Vegetable Seed

OECD Seed Schemes for the Varietal Certification or the Control of Seed

- Listing of varieties (DUS + VCU)
- Official control or control under official supervision
- Varietal identity and varietal purity
 - Field inspection of seed crop
 - Post control of seed certified

OECD Seed Schemes for the Varietal Certification or the Control of Seed

- Seed sampling
- Fastening and labelling of container
- Labels and certificates
- Seed testing (according to current international methods)

- Lot size
- Minimum Requirements for the Production of Basic and Certified Seed
- Previous cropping
- Isolation
- Varietal purity

The key elements

- The country of certification shall be denoted by employing the ISO-3166-1 three-letter code. Where there is more than one National Designated Authority in the country, appropriate initial letters should be added
- Reference to the OECD Scheme shall be printed in English and in French within the black portion of the label This shall read: "OECD Seed Scheme" and "Système de l'OCDE pour les Semences".

- Striped label: Pre-basic Seed (PB)
- White label: Basic Seed (SB)
- Blue label: Certified Seed 1st Generation (C1)
- Red label: Certified Seed (C2)
- Green label: mixtures
- Grey label: seed not finally certified



OECD SEED SCHEME
SYSTEME OCDE POUR LES SEMENCES

CRA - SCS - I
Centro di sperimentazione e certificazione sementi
Via Ugo Bossi 8, Milano I

category **PRE BASIC SEED**
generation
reference n° ITA
species
cultivar

NOT AUTHORIZED PRINTING WILL BE PROSECUTED BY LAW

1413204/ANDOS

N° 471600001984

OECD SEED SCHEME
SYSTEME OCDE POUR LES SEMENCES

CRA - SCS - I
Centro di sperimentazione e certificazione sementi
Via Ugo Bossi 8, Milano I

category **BASIC SEED**
reference n° ITA
species
cultivar

NOT AUTHORIZED PRINTING WILL BE PROSECUTED BY LAW

1413204/ANDOS

N° 472600020004

OECD SEED SCHEME
SYSTEME OCDE POUR LES SEMENCES

CRA - SCS - I
Centro di sperimentazione e certificazione sementi
Via Ugo Bossi 8, Milano I

category **CERTIFIED SEED**
reference n° ITA
species
cultivar

NOT AUTHORIZED PRINTING WILL BE PROSECUTED BY LAW

1413204/ANDOS

N° 474400820002

OECD SEED SCHEME
SYSTEME OCDE POUR LES SEMENCES

CRA - SCS - I
Centro di sperimentazione e certificazione sementi
Via Ugo Bossi 8, Milano I

category **CERTIFIED SEED 2nd GEN.**
reference n° ITA
species
cultivar

NOT AUTHORIZED PRINTING WILL BE PROSECUTED BY LAW

1413204/ANDOS

N° 476500690002

The OECD Seed Schemes in a nutshell

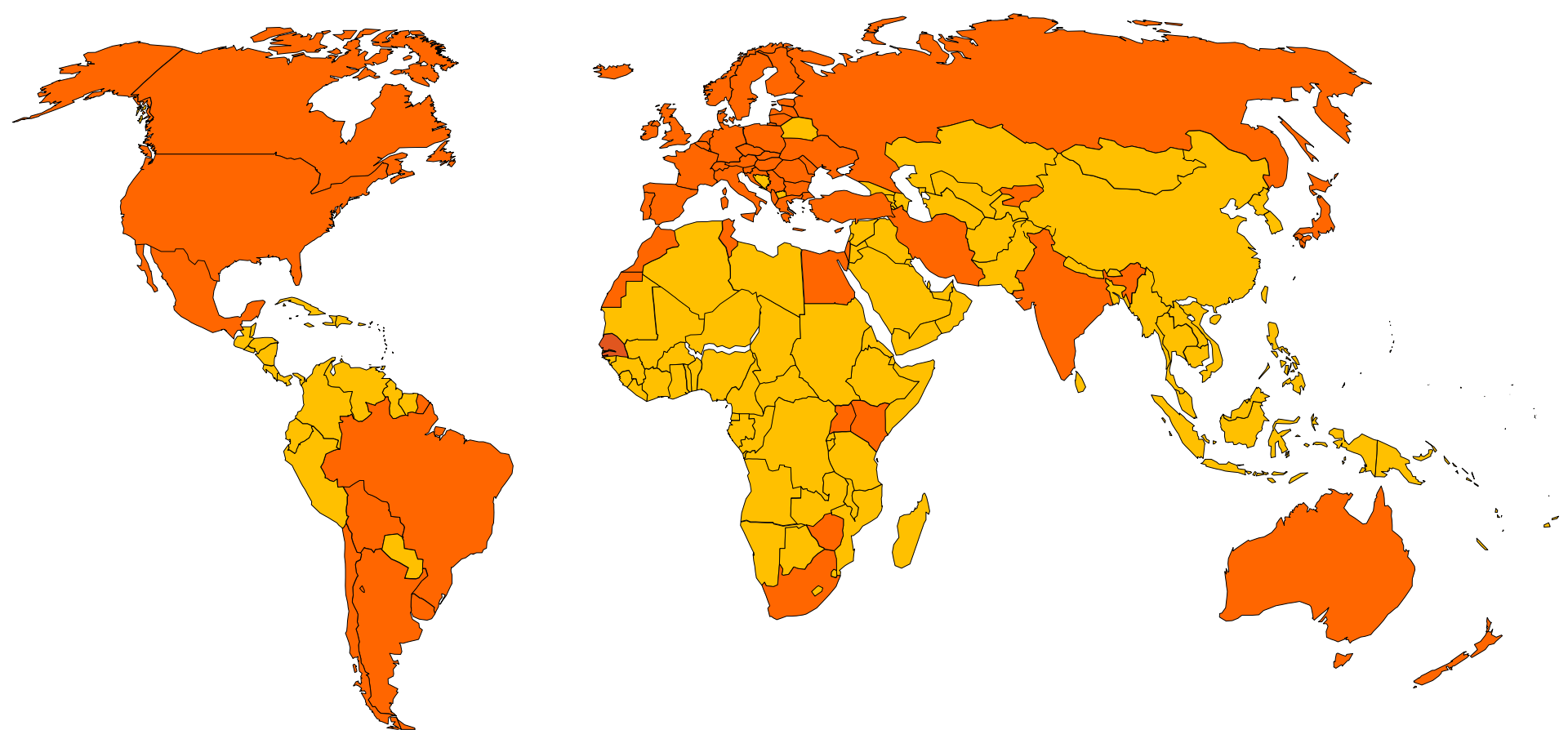
In addition to the rules and regulation of the Schemes

- Guidelines:
 - Control plot test and field inspection
 - Multiplication abroad
 - Authorization of some certification activities

The OECD Seed Schemes in a nutshell

It is open to all Members of the Organisation, as well as to any Member of the United Nations, its Specialised Agencies or the World Trade Organisation

59 Participant countries (33 OECD Member countries and 26 non OECD Member countries)



The OECD Seed Schemes in a nutshell
59 Participant countries (2015)

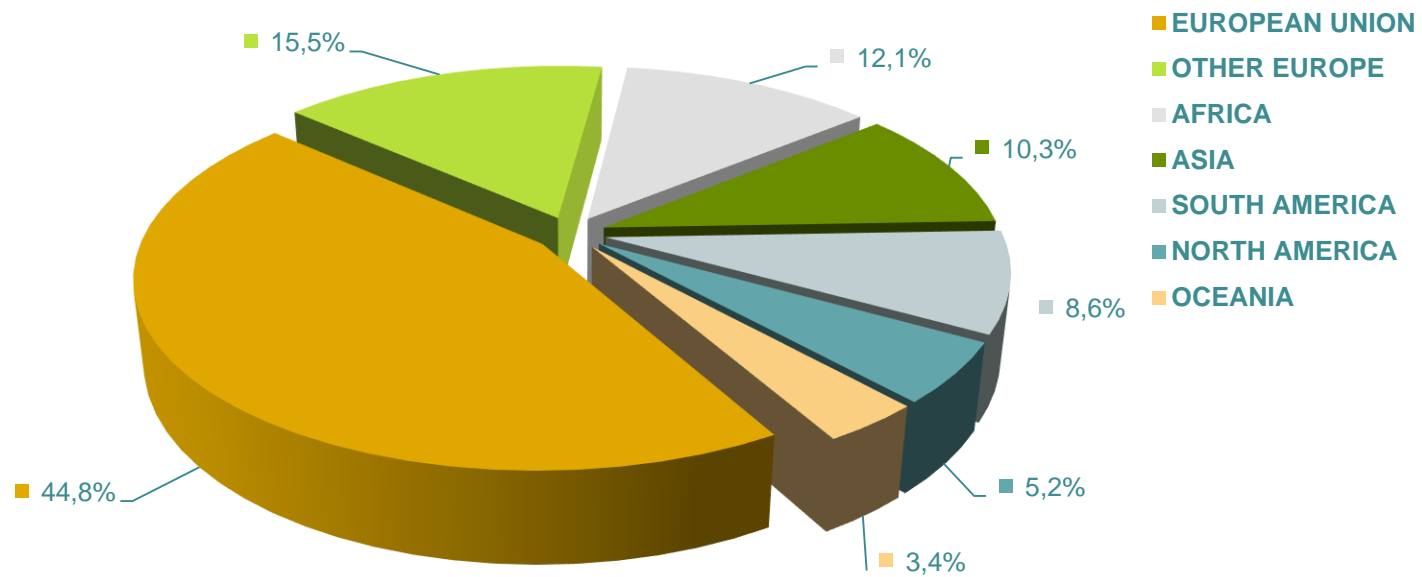
Country Participation in Various Schemes

	OECD SCHEMES FOR THE VARIETAL CERTIFICATION OR THE CONTROL OF SEED						
	Grasses and legumes	Crucifers and other oil or fibre species	Cereals	Fodder Beet and sugar beet	Maize and sorghum	Subterranean clover and similar species	Vegetables
ALBANIA							
ARGENTINA							
AUSTRALIA							
AUSTRIA							
BELGIUM							
BOLIVIA							
BRAZIL							
BULGARIA							
CANADA							
CHILE							
CROATIA							
CYPRUS							
CZECH REPUBLIC							
DENMARK							
EGYPT							
ESTONIA							
FINLAND							
FRANCE							
GERMANY							
GREECE							
HUNGARY							
ICELAND							
INDIA							
IRAN, ISLAMIC REP. OF							
IRELAND							
ISRAEL							
ITALY							
JAPAN							
KENYA							

	OECD SCHEMES FOR THE VARIETAL CERTIFICATION OR THE CONTROL OF SEED						
	Grasses and legumes	Crucifers and other oil or fibre species	Cereals	Fodder Beet and sugar beet	Maize and sorghum	Subterranean clover and similar species	Vegetables
KYRGYSZTAN							
LATVIA							
LITHUANIA							
LUXEMBOURG							
MEXICO							
MOLDOVA							
MOROCCO							
NETHERLANDS							
NEW ZEALAND							
NORWAY							
POLAND							
PORTUGAL							
ROUMANIA							
RUSSIAN FEDERATION							
SERBIA							
SLOVAK REPUBLIC							
SLOVENIA							
SOUTH AFRICA							
SPAIN							
SWEDEN							
SWITZERLAND							
TUNISIA							
TURKEY							
UGANDA							
UKRAINE							
UNITED KINGDOM							
UNITED STATES							
URUGUAY							
ZIMBABWE							

The OECD Seed Schemes in a nutshell

Share of participant countries by continent



The OECD Seed Scheme in a nutshell

Co-operation with other international organizations

UPOV (International Union for the Protection of New Varieties of Plants)

ISTA (International Seed Testing Association)

AOSA (Association of Official Seed Analysts)

AOSCA (Association of Official Seed Certifying Agencies)

AFSTA (African Seed Trade Association)

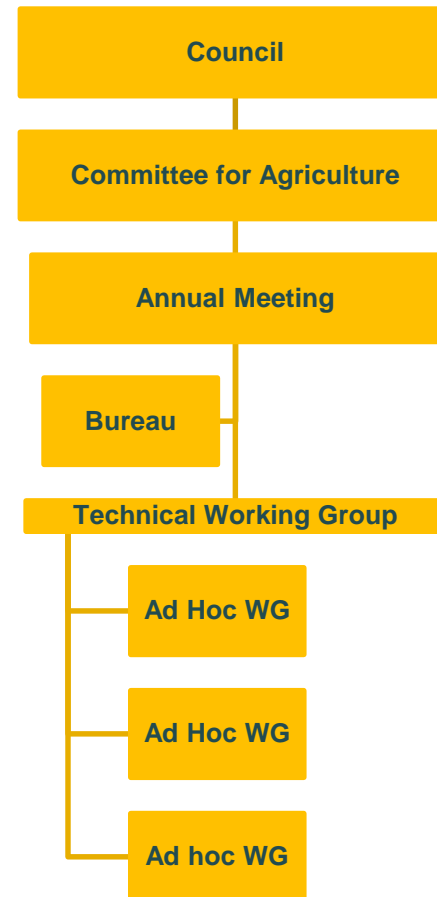
APSA (Asian and Pacific Seed Association)

ISF (International Seed Federation)

ESA (European Seed Association)

The OECD Seed Scheme in a nutshell

The decision making process



The OECD Seed Scheme in a nutshell (key figures)

Certified seed only

Table 4. Leading species, average annual total weight (1000 t)

Species	Weight
<i>Zea mays</i>	276.2
<i>Helianthus annuus</i>	24.6
<i>Triticum aestivum</i>	19.3
<i>Lolium perenne</i>	17.6
<i>Triticum turgidum durum</i>	12.5
<i>Lolium multiflorum</i>	12.5
<i>Brassica napus</i>	12.0
<i>Glycine max</i>	11.7
<i>Beta vulgaris</i>	10.9
<i>Gossypium hirsutum</i>	10.7

Figure 4. Total weight (in 1000 tonnes) by Scheme, all respondents

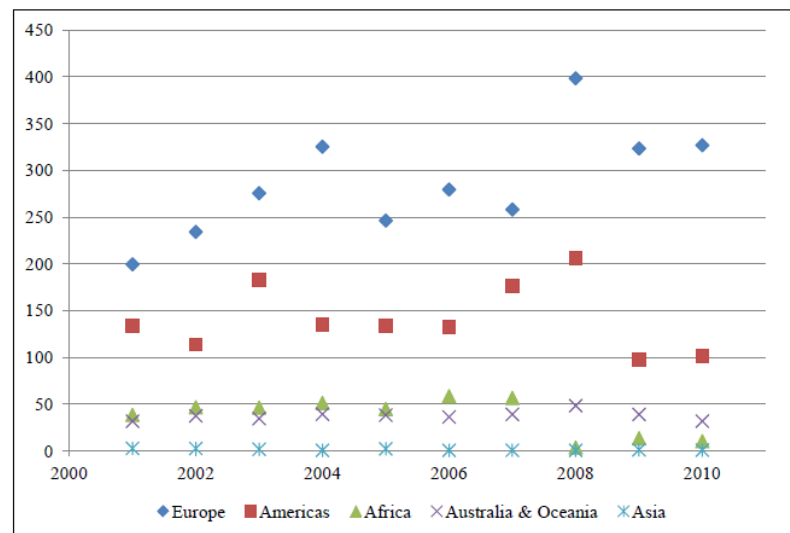


The OECD Seed Schemes in a nutshell (key figures)

Table 2. Top 10 countries, total weight (1000 tonnes), average across all reported

Country	Annual weight
France	79.4
Hungary	75.8
USA	69.2
Chile	44.3
Italy	40.7
Kenya	26.2
New Zealand	23.5
Turkey	21.4
Tunisia	17.0
Australia	12.9

Figure 2. Total weight (1000 tonnes), 2001-2010, by continent



- **Appointed by the Ministry of Agriculture**
 - Usually a Division or Unit within the Ministry or Agency authorised by the Minister
- **Good technical knowledge of the OECD Schemes and understanding of the key criteria for varietal certification**

- **Good procedural knowledge of the workings of the Schemes**
- **Works closely with the OECD Secretariat in resolving trade related concerns**

- Implements the OECD Schemes in the Member country according to the Rules
- Authority to issue OECD labels & certificates
- Liaise (key contact point) with OECD Secretariat, industry, NDAs in other countries

- Participates in OECD Seed Schemes Meetings; Annual Meeting, TWG meetings, etc.
- Responsible for completing the annual Questionnaire on weight of seed certified & post control test results
- Provide the relevant information (completed template) to the OECD Coordinating Centre on varieties to be added to the OECD List

- Official letter

Ministry of Agriculture to the OECD
Secretariat

- Basic documentation

Seed certification in the country, imports and exports, varieties registered on the National List, post-control etc.

- Evaluation mission (costs to be born by the applicant country)

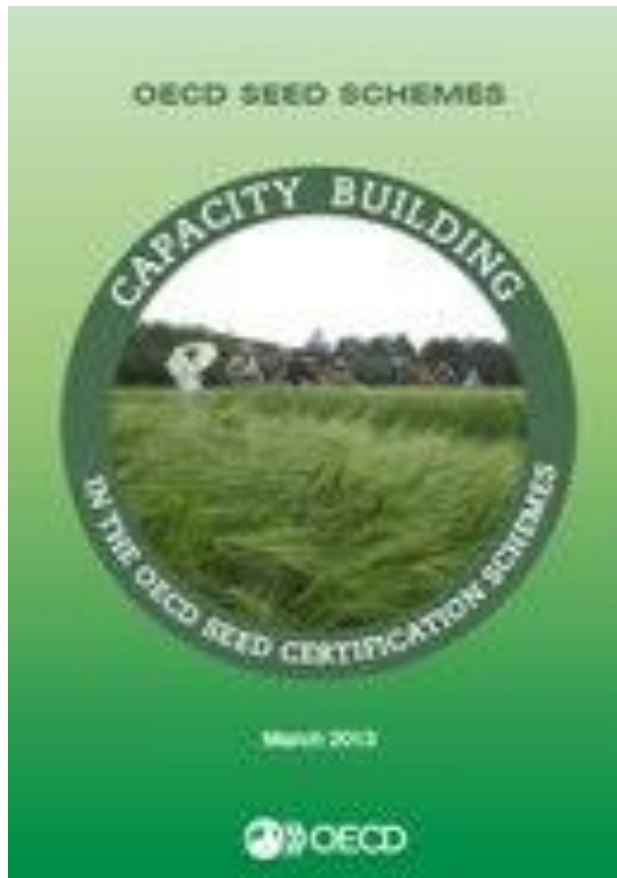
Undertaken by the OECD (2 experts, 3-5 days)

- Evaluation Report
 - Annual Meeting of the Seed Schemes
- Official admission procedures

Approval by consensus: OECD Annual Meeting, OECD Committee for Agriculture and the OECD Council

OECD Agricultural Codes and Schemes

Capacity building & International regulatory Aspects



Strategic plan (set 2009)

Five key areas

1. Effective Implementation of the Schemes

To promote effective and harmonized implementation of the Schemes in Member countries.

2. Effective Communications

To improve communications for enhancing the implementation of the Schemes, as well as to better promote the Schemes.

3. Enhance Policy Awareness through better Linkages to Seed related issues

To enhance policy awareness by informing policy makers of the key role of the OECD Seed Schemes in the seed supply chain.

To ensure the inclusion of the seed sector in agro-food sector discussions and other related areas.

4. Address Institutional and Technical Developments

To continue to adapt the Rules and Procedures in order to respond to new and emerging concerns in the seed sector.

5. Enlarge Participation in the Schemes

To promote the harmonization of seed certification standards and procedures worldwide.

challenges

1. Participation to the Seed Schemes
2. Use of biochemical characteristics for varietal identity and purity assessment
3. New technical developments
4. Admission of varieties to the OECD list
5. Addressing critical issues
6. Improving security of labels

challenge 1

Participation to the Seed Schemes

Recent accessions:

- India - all the schemes except beet and subterranean clover (2008)
- Moldova - all the schemes except beet (2008)
- Ukraine - Cereals, maize & sorghum (2009)

challenge 1

Last accession: Senegal (2015)

Applicant country: Tanzania (2015)

**Interest expressed by: Indonesia, China,
Zambia and Azerbaijan**

challenge 1

Extention to new Schemes

- United Kingdom - Maize & Sorghum (2013)
- Estonia - Maize & Sorghum and Sugar beet & Fodder beet (2014)
- Ukraine - Crucifer species and other Oil and Fiber Species (2014)

challenge 1

Extention of membership

Iran applied to extend its membership from Fodder Beet and Sugar Beet Seed Scheme to the Cereal Seed Scheme and the Maize and Sorghum Seed Scheme (2015)

challenge 1

- Admission of OECD Member States to the Seed Schemes and admission of non OECD Member States in a broader context of OECD Rules
- Lessons learned

challenge 2

Use of new methodologies for the assessment of varietal identity and purity

- the characteristics which distinguish one variety from another have to be established so that it is possible to identify seed crops and seed lots as being consistent with the known characteristics of the variety recognised at the time of Registration

challenge 2

- **Morpho-physiological characteristics and biochemical characteristics**
- **Guideline for control plot tests and field inspection of seed crop (2012)**
- **It is essential to adopt technical methods which achieve sufficiently accurate and reliable results, yet can be operated within the limits of available resources**

challenge 2

- Ad Hoc Working Group
- Co-operation with ISTA and UPOV
- Survey of methods available and used
- The issue of «international validated» method

challenge 3

Address technical developments (e.g.)

- Varietal purity standard for:
 - hybrid of barley
 - spring oil rape seed
- Hybridity versus impurity
- Mixture of varieties



challenge 4

Admission of varieties to the OECD list

- Varieties shall be accepted into a Scheme only if satisfactory results have been obtained by **official tests** in at least one participating country;
- An officially recognized description of the variety including the essential **physiological and morphological** characters must be available;
- The tests must also establish that the varieties have an **acceptable value** in at least one country

challenge 4

The discussion is being focused on the following questions:

- Which are the procedures allowed to produce an “official description”?
- Which role should the NDA, a third party, the breeder play in generating the description?

challenge 4

- Should the description include characteristics other than morphological and physiological (i.e. biochemical)?
- Should the “acceptable value” still be considered a requirement for a variety eligible for certification under the OECD Seed Schemes?

challenge 5

Addressing critical issue

The subject matter is the definition of an appropriate procedure to address complaints that can affect reputation of the Schemes or of the quality of seed produced in a certain country.

challenge 5

- The complaint involves importing and exporting country
- The NDA involved should first attempt to solve the problem bilaterally
- The process should not overlap commercial dispute managed by ISF (International Seed Federation)

challenge 5

- The process should operate as a «voluntary code of practice»
- The role of the companies, the Secretariat, the Bureau and the Annual Meeting are foreseen

challenge 6

Improving security of labels

Recent cases, under investigation, of counterfeit OECD labels reinforced the idea that OECD should intervene to improve security of labels

The discussion is progressing by steps:

challenge 6

- Survey of labelling and sealing methods used in OECD Seed Schemes countries
- pros and cons analysis of the current labelling rules
- Identification of the possible way forward:

challenge 6

- Barcode,
 - QR code (Quick response)
 - Invisible printing (infrared, ultraviolet)
 - RFID (Radio Frequency Identification)...
- ...anyway the system should be cost-effective, secure, standardised and open to all countries to use



Next events

**Technical Working Group: 25-29 January 2016
(Cape Town - ZA)**

• Annual Meeting: 6-10 June 2016 (Paris)

Special event- Policy Forum 5 June 2015

«OECD Agricultural Committee & Seed Schemes

Bridging the gap between seed regulatory

policies & agricultural policies »

The primary goals of this Policy Forum are to:

- Improve the understanding and interaction between the Technical Committee on the OECD Seed Schemes and the Committee for Agriculture;
- Increase awareness amongst policy makers of the complexity of seed policy;
- Identify effective mechanisms by which the flow of information between the technical committee and agricultural policy makers can be improved;

The primary goals of the Policy Forum are (ctd):

- The role of national seed policies in the context of harmonised global standards;
- Identify new challenges facing the sector.

BA/12/IB/AG 01 Further strengthening of capacities of phytosanitary sector in the fields of plant protection products, plant health and seeds and seedlings, including phytosanitary laboratories and phytosanitary inspections




CONSIGLIO PER LA RICERCA
IN AGRICOLTURA E L'ANALISI
DELL'ECONOMIA AGRARIA

CRA-SCS
CENTRO DI SPERIMENTAZIONE
E CERTIFICAZIONE DELLE SEMENTI

Presentation of CRA-SCS

Pier Giacomo Bianchi

Outlook

- **CRA-SCS as seed Centre of CRA**
 - **Overview of seed activities**
 - **CRA-SCS on the territory**
 - **Seed certification in Italy by figures**
 - **Staff**
- 

Public body under the supervision of the Ministry of Agriculture (research area)

- Established 1954 as ENSE
- ENSE merged with INRAN 2010
- INRAN merged with CRA 2013
- CRA merged with INEA (National Institute for Economical Analysis) 2014

Presentation of CRA-SCS

Who we are

CRA

Italy's largest public agency operating
in the field of agriculture

15 Centers
32 Units

With scientific expertise in
the main agricultural supply chains

Specializing in
key scientific sectors

- agrarian engineering
- climatology and meteorology
- entomology and pathology
- genomics and breeding
- pedology
- forestry and land use
- agro-food technology
- agronomy
- animal husbandry
- wine
- olive oil
- fruit
- vegetables
- citrus
- cereal
- plant nurseries
- industrial crops and wood


Italy's fourth largest
public agency for research

1,400
Staff members

5,300
hectars of property for experimental use


2/3
Researchers
Technicians and Operators


United in Research for Agriculture




The Agricultural Research Council (CRA) is a National Research Organization which operates under the supervision of the Ministry of Agriculture, with general scientific competence within the fields of agriculture, agroindustry, food, fishery and forestry.

The CRA has been established with the legislative decree n.454/99 and gathers together the experience of 28 Agricultural Research Institutes and their relative 54 peripheral operational units for a total of 82 offices throughout the nation





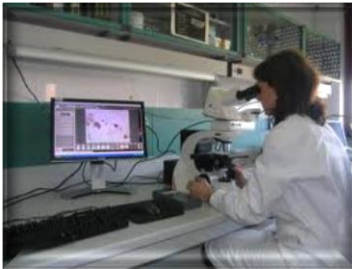
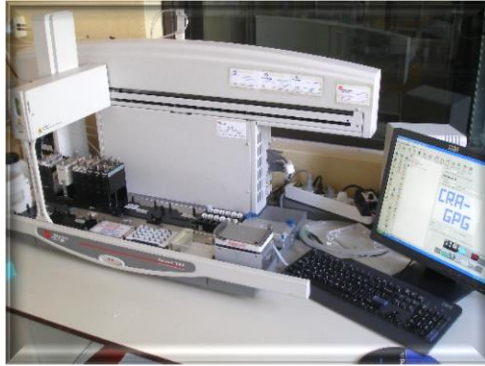
The distribution of the CRA offices throughout national territory allows it to widely extend its expertise and proficiency, and to closely operate in conjunction with central administrations, local and regional institutions, companies and various trade, industrial and legal associations



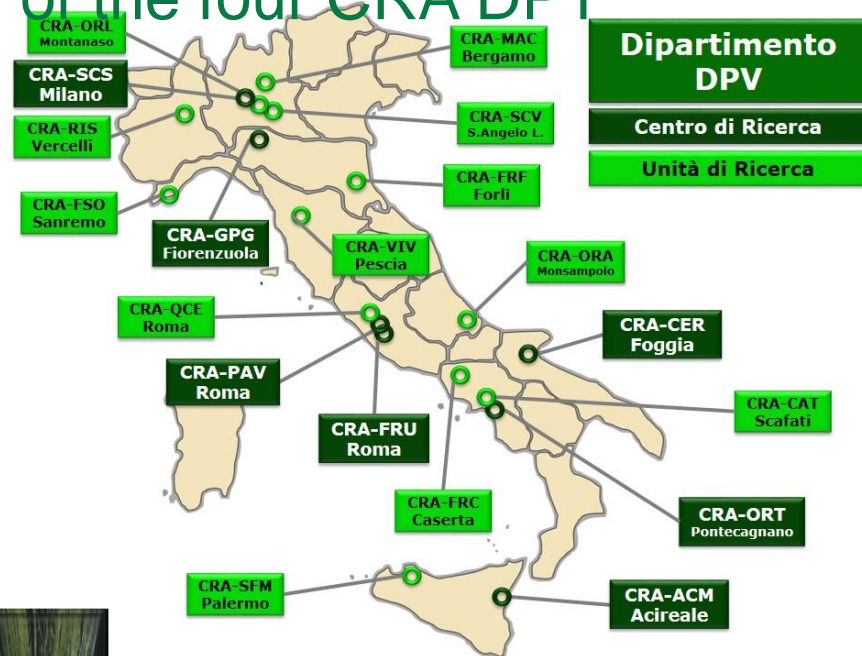
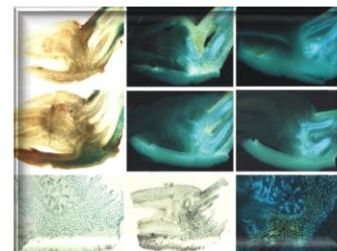
... 5000 ha experimental farms network



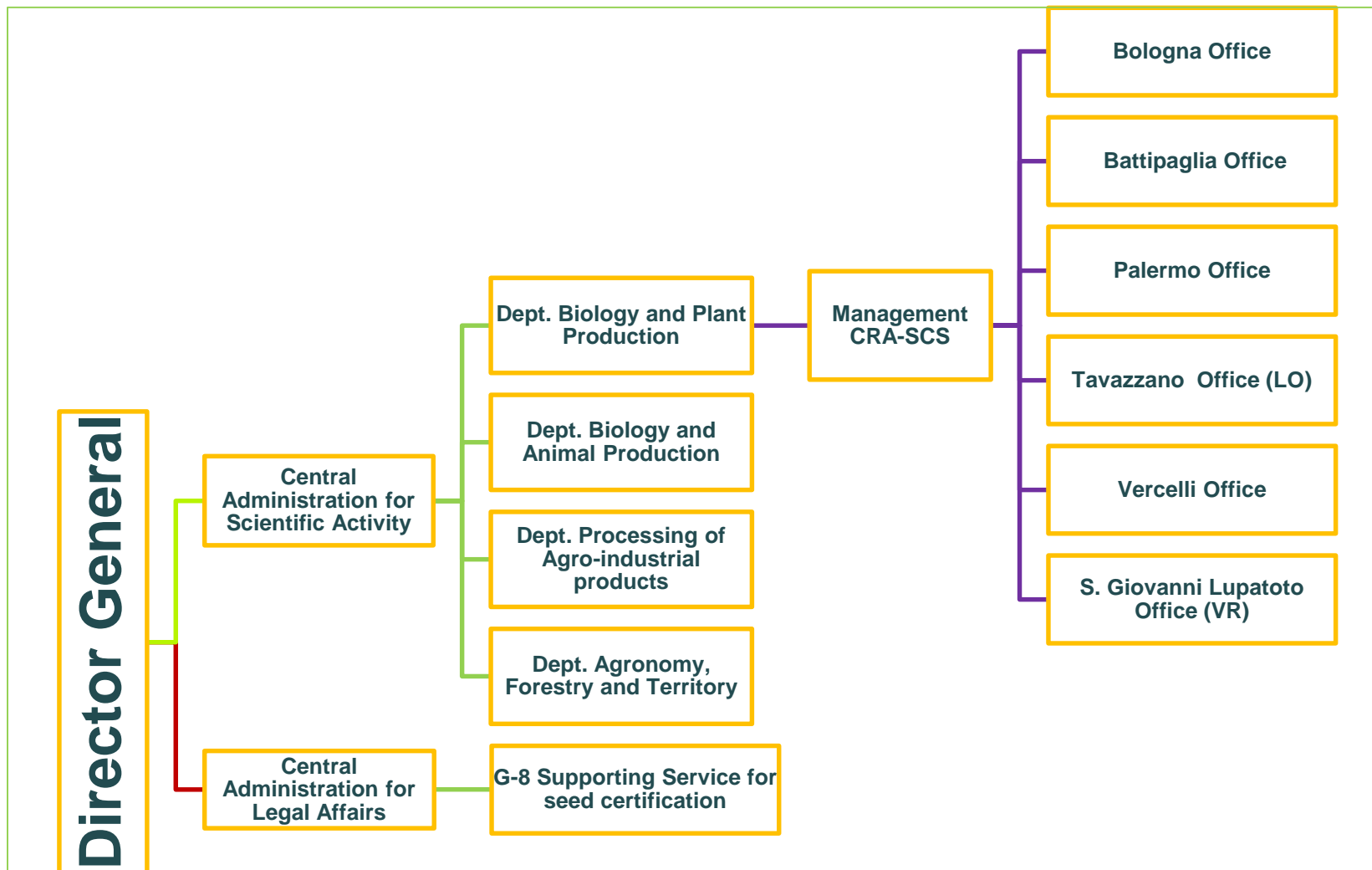
... most advanced laboratories ...



CRA-SCS is included in the Department of Biology and herbaceous production of CRA one of the four CRA DPT



Presentation of CRA-SCS

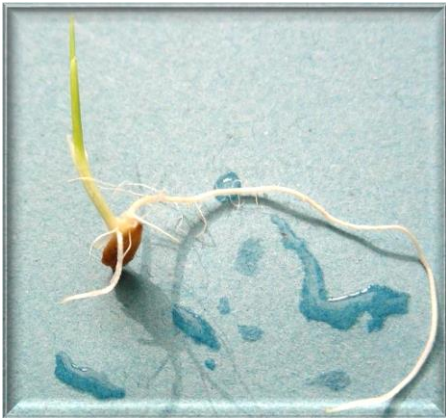


Mission of CRA-SCS:

CRA-SCS, the Centre for Experimentation and Certification of seed of the Council for Research and Experimentation in Agriculture, is responsible for seed control and certification and the assessments of the requirements to list or release plant varieties rights for agricultural and vegetable species in Italy.

It deals with research and experimentation related to seed certification and seed innovation, focussing on genotypical, phytopathological, technological tests and trials to qualify seed and propagating material of herbaceous species

Presentation of CRA-SCS



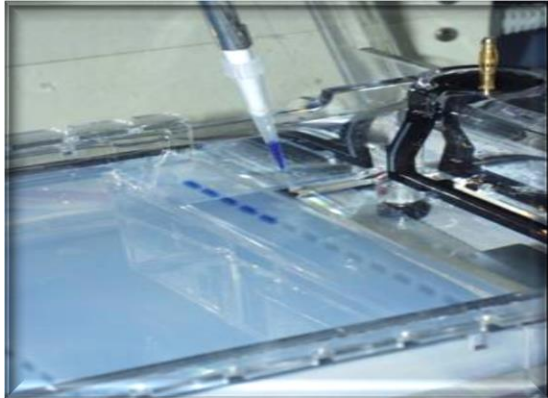
OECD SEED SCHEME
SYSTEME OCDE POUR LES SEMENCES

CRA - SCS - I
Centro di sperimentazione e certificazione sementi
Via Ugo Bassi 8, Milano I

N°
category
reference n°ITA
species
cultivar/hybrid
country of production
declared weight kg
date of sealing


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Cod. 30



CRA-SCS as the national seed certification agency is independent from DPV and responds to the General Director of CRA

Activities of CRA-SCS:

- seed certification
 - research and experimentation
 - co-ordination and tests for new varieties
 - tests for plant breeders rights
 - technical advises to the authorities
- 

Presentation of CRA-SCS

MINISTRY OF AGRICULTURE

Enforcement Service

Plants Breeders' Right

Regions

Phytosanitary controls

Ministry of Economic Development

Listing of varieties

OTHER CRA CENTRES

CRA-SCS

CRA-SCS

OTHER CRA CENTRES

DUS

DUS
VCU

PBR
Committee

Listing
committee

Plants Breeders' Right

Seed
Certification

Check on Maintenance of varieties

Organizational chart of the Italian system for seed controls

CRA-SCS in the international play-ground:

- Italian National Seed Certification Agency
- OECD National Designated Authority
- ISTA accredited
- CPVO Examination office (*Oryza sativa*, *Triticum durum*, *Vicia narbonensis*, *Cynara cardunculus*)

CRA-SCS in the international play-ground - active participation in:

- EU (Council, PAFF- Propagating material)
- UPOV (CT, TWA, TWC, BMT, TWV)
- UNECE (seed potatoes)
- ENGL (GM Seed testing)
- TAIEX (Technical assistance)
- ESCAA (European seed certification agencies association)
- EPPO (European Plant Protection Organization)

Departments for seed certification

- 5 Seed testing stations
- 3 Phytopatology laboratories
- 3 Experimental stations
(28 ha)

Rented land network (5 ha)



- SEZIONE DI CERTIFICAZIONE
- LABORATORIO ANALISI SEMENTI
- ▲ LABORATORIO ANALISI FITOPATOLOGICO
- ◉ AZIENDA SPERIMENTALE
- ◼ SEDE SETTORE SEMENTIERO

Sezione di Milano Piemonte, Valle d'Aosta, Lombardia, Liguria, Sardegna e Prov. di Piacenza
Sezione di Verona Veneto, Friuli, Trentino Alto-Adige*
Sezione di Bologna Emilia Romagna, Toscana, Marche, Umbria, Abruzzo
Sezione di Battipaglia Lazio, Campania, Molise, Basilicata, Puglia, Calabria
Sezione di Palermo Sicilia

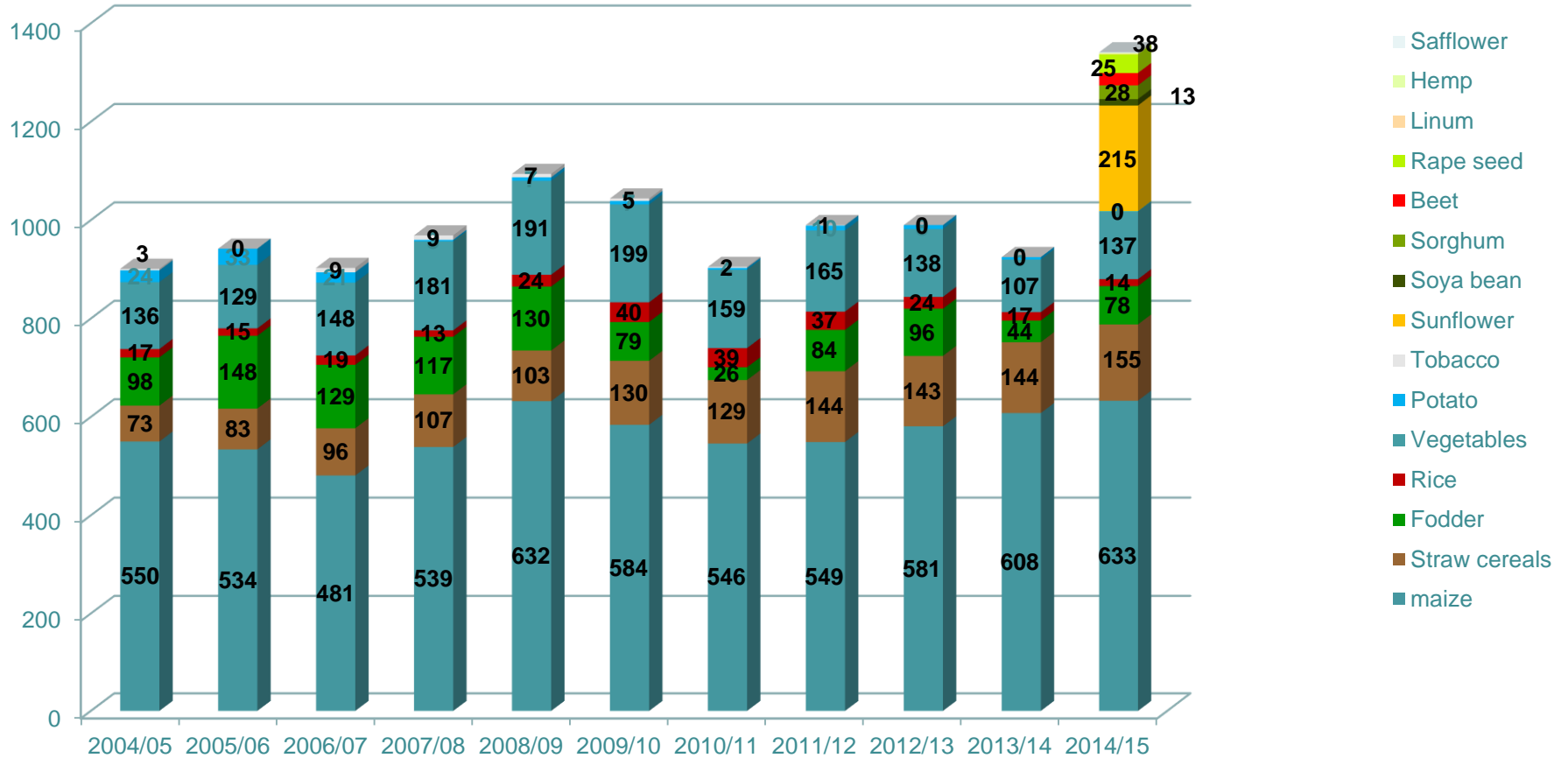
* dalla campagna di ispezioni alle colture 2007 e nella conseguente campagna 2007/2008 di controlli alle operazioni di selezione e confezionamento sono integrati nella attività di competenza della Sezione di Bologna

Seed figures in Italy (2014) in brackets 2011 figures:

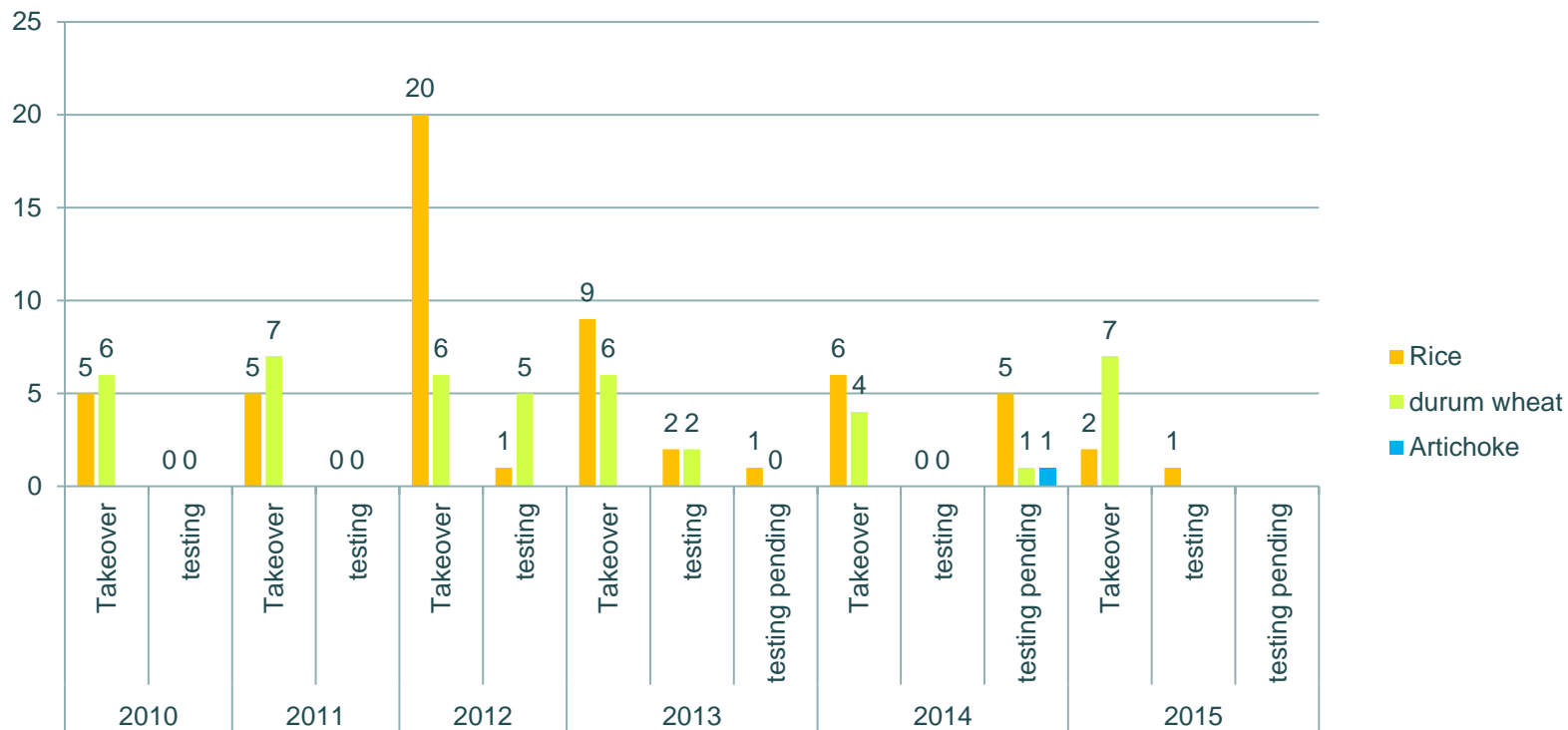
- Turnover: 1,3 billion Euro per year (2011) ↑
- Seed companies:
 - Agricultural crops: 222 (250) ↓
 - Vegetables crops: 61 (75) ↓
- Seed producers: 8995 (8.000) farmers ↑
- Surface for seed production: 188.717 (157.000) ha ↑
- Certified seed: 508.514 (460.000) ton ↑

- Samples tested for seed certification per year: 26.400 (20.000) ↑
- Private samples (incl. ISTA): 13.400 (10.500) ↑
- Monitoring GM seed: 3.700 (2.000) ↑
- Plots for post control
 - Agricultural: 4.000 (3.600) ↑
 - Vegetables: 1.200 (800) ↑
- Official tags printed: 12 million =

Varieties tested for listing in Italy 2004/2005 to 2014/2015

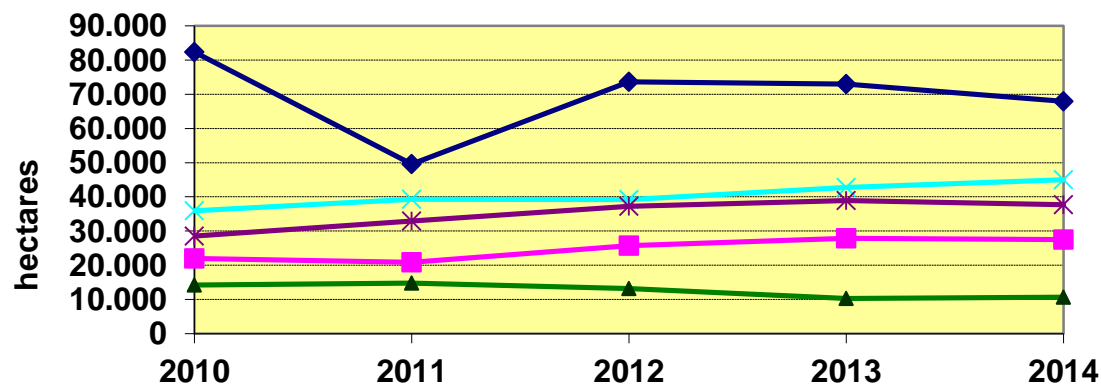


CPVO - number of report by CRA-SCS 2010 to 2015



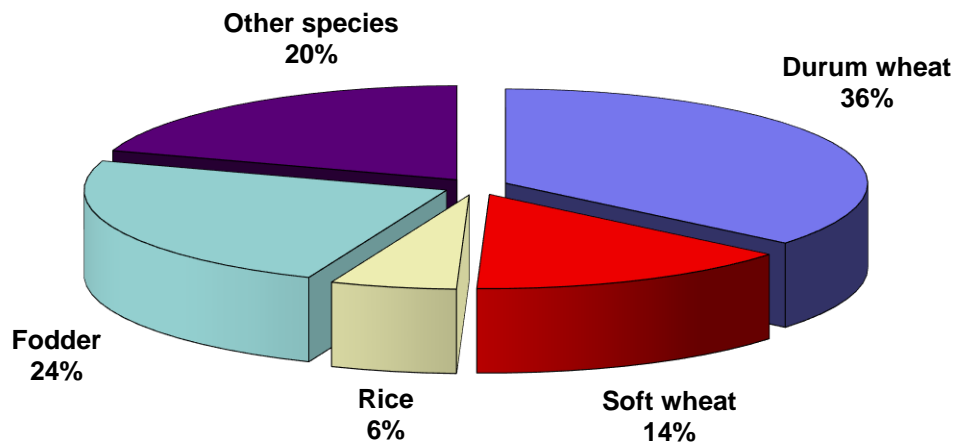
Species or group of species	2010	2011	2012	2013	2014
1 Durum wheat	82.323,08	49.599,86	73.672,88	72.958,28	67.907,32
2 Soft wheat	21.981,04	20.888,21	25.707,33	27.859,15	27.497,56
3 Rice	14.192,20	14.729,59	13.172,94	10.289,67	10.627,31
4 Fodder	35.918,48	39.267,06	39.161,83	42.754,29	45.004,65
5 Other species	28.528,01	32.910,04	37.219,32	38.921,71	37.679,73
TOTALE	182.942,81	157.394,76	188.934,30	192.783,10	188.716,57

Surface inspected for seed production 2010-2014

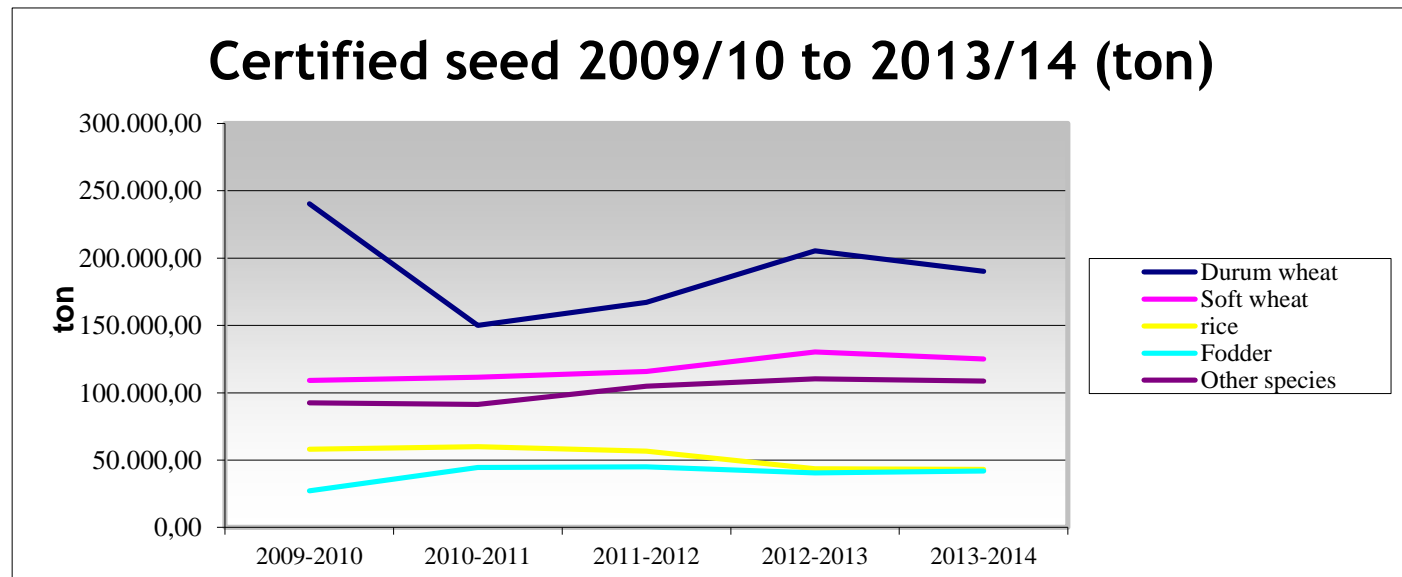


◆ Durum wheat ■ Soft wheat ▲ Rice ✕ Fodder ✖ Other species

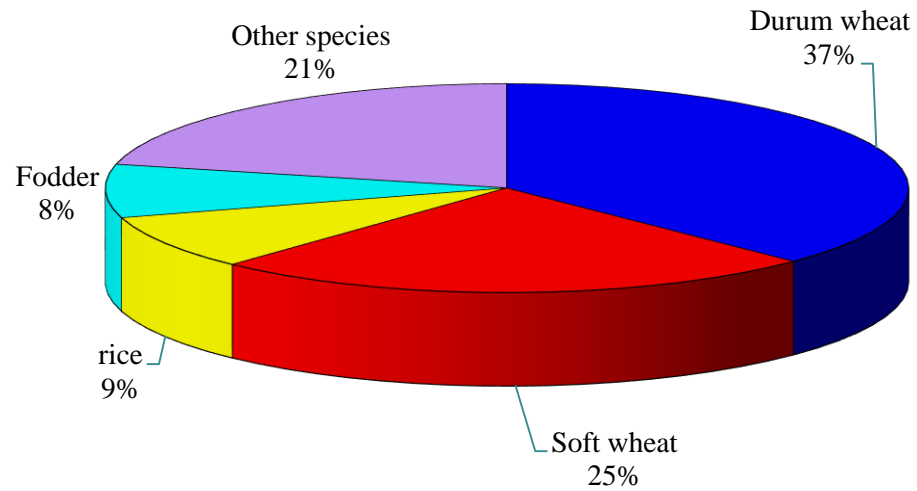
Surface inspected for seed production by species - 2014



Species or group of species	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Durum wheat	240.422,26	150.114,52	167.242,42	205.367,51	190.167,56
Soft wheat	109.242,83	111.514,81	115.940,26	130.278,30	125.036,89
rice	58.091,73	60.074,08	56.644,35	43.602,81	43.033,30
Fodder	27.102,14	44.557,88	44.979,93	40.457,20	41.901,26
Other species	92.588,88	91.460,91	104.792,42	110.328,93	108.674,93
Total	527.447,84	457.722,20	489.599,38	530.034,75	508.813,94



Certified seed by species 2013-2014



**STAFF CRA-SCS - 2014 (in brackets 2011) -
Employed on a:**

- permanent basis: 86 (94) units ↓
 - 35% graduates - 43% technicians
- temporary basis: 67 (57) year/units ↑
 - Researchers 13 (4)
 - Technicians 40 (19)
 - Workers 10 (7)
 - Stagers 1 (27)
- external inspectors: 45
- authorized inspectors: 184

• **Budget 2014 12.370.000 Euro** ↑

• **Certification 72 %** ↑

• **Listing 19 %** ↑

• **Research 9 %** ↓

Budget 2010: 10.135.000 Euro ↓

• Certification 68% ↓

• Research 13% ↑

• Listing of varieties 11% ↑

• Others 8% =