

# PLANT GENETIC RESOURCES IN LATVIA

Anita Gaile, Agnese Gailīte, Dainis Ruņģis

Genetic Resource Centre, Latvian Gene Bank of Cultivated Plants

# PGR conservation

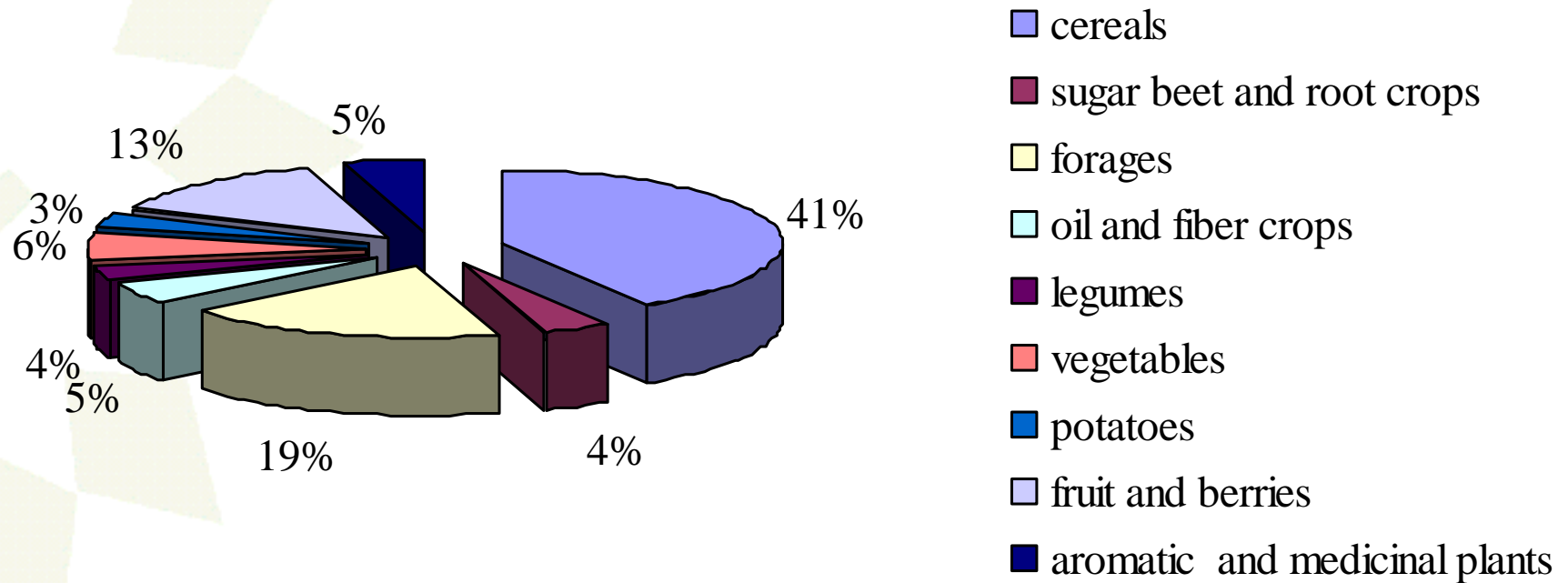


**field collections** (fruits and berries, vegetables, aromatic and medicinal plants),  
*in vitro* (potatoes),  
**Gene bank** (seeds).



([www.genres.lv](http://www.genres.lv))

# Crop structure of plant genetic resources in Latvia



# SESTO

## Latvian national inventory



	No of accessions
Seeds	1903
Fruits and berries	416
Potatoes	83
Field vegetables	185

# Latvian NI data in EURISCO



- LVA009 - 1788 (seeds)
- LVA006 – 83 (potato)
- LVA014 – 185 (field collections)
- LVA015 – 438 (fruit and berries)
  
- LVA (total) – 2494
  
- AEGIS – 21 (12 barley, 9 wheat)
- C&E – 9 (plums)

# SESTO

## Latvian national inventory



The main passport data, germination and storage information are available.

SESTO	Trait (C&E)	References	Utilities	User Manual	Links										
Genus		Taxons			Accessions	[Search]									
Taxon List															
A	B	C	D	F	G	H	L	M	P	R	S	T	V	X	Z
Scientific name		Crop name			Latvian name		accessions								
<a href="#">Agrostis gigantea</a>						Black Bent				baltā smilga				3	[select]
<a href="#">Allium cepa</a>						Garden Onion				dārza sipols				67	[select]
<a href="#">Allium sativum</a>						Garlic				ķiploka				60	[select]
<a href="#">Alopecurus pratensis</a>						Meadow Foxtail				pļavas lapsaste				16	[select]
<a href="#">Anethum graveolens</a>						Dill				dilles				1	[select]
<a href="#">Armoracia rusticana</a>						Horse Radish				mārrutki				11	[select]
<a href="#">Arrhenatherum elatius</a>						Tall Oat Grass				augstā dižauza				1	[select]
<a href="#">Avena sativa</a>						Oat				auzas				84	[select]
<a href="#">Beta vulgaris var. altissima</a>						Sugar Beet				cukurbietes				107	[select]
<a href="#">Brassica juncea</a>						Potherb Mustard, India mustard				sareptas (zilganās) sinepes				3	[select]
<a href="#">Brassica napus ssp. oleifera</a>						Rape				rapsis				5	[select]
<a href="#">Brassica napus var. napobrassica</a>						Swede				kālis				2	[select]
<a href="#">Brassica oleracea var. capitata f. alba</a>						White Cabbage				galviņkāposti				2	[select]
<a href="#">Brassica rapa ssp. oleifera</a>						Turnip Rape				ripsis				1	[select]
<a href="#">Bromus inermis</a>						Awnless Brome				bezakotu lācauza				1	[select]
<a href="#">Carum carvi</a>						Common Caraway				ķimenes				1	[select]
<a href="#">Chaenomeles japonica</a>						Japanese Quince				cidonija				10	[select]
<a href="#">Corylus avellana</a>						Hazel				lazdas				14	[select]
<a href="#">Cucumis sativus</a>						Cucumber				gurķi				10	[select]
<a href="#">Cydonia oblonga</a>						Cydonia				cidonija				4	[select]
<a href="#">Cynosurus cristatus</a>						Crested Dog's-tail				parastā sekstaine				3	[select]
<a href="#">Dactylis glomerata</a>						Orchard Grass				kamolzāle				27	[select]
<a href="#">Fagopyrum esculentum</a>						Buckwheat				griķi				57	[select]
<a href="#">Festuca arundinacea</a>						Tall Fescue				niedru auzene				27	[select]
<a href="#">Festuca pratensis</a>						Meadow Fescue				pļavas auzene				73	[select]
Total hits 91 (viewing 1-25)													View list as excel report (as above)		Next 25

Accession number :

Explanation to the codes and abbreviations above , **accessions**: Number of preserved accessions from each taxon, **TaxNum**: Taxon id number, **TaxRsp**: Taxon responsibility code. 'ACC' indicates the mandate species., **WGR**: The crop network responsible for the taxon

SESTO application by © Nordic Genetic Resource Center (NordGen) © GPL 2.0 [SESTO tutorial] [SESTO User manuals]

You are not logged in [LOGIN FORM] Scope: lva [change] Language: eng

Your web browser is Firefox.

SESTO	Trait (C&E)	References	Utilities	User Manual	Links	
Genus		Taxons		Accessions		[Search]
<b>Taxon</b>						
Scientific Name	Authority	Family	English name	IT PGR Annex 1	Latvian name	
<a href="#">Avena sativa</a>	<a href="#">L.</a>	<a href="#">Poaceae</a>	<a href="#">Oat</a>	<a href="#">TRUE</a>	<a href="#">auzas</a>	
<b>Cultivar</b>						
Advanced cultivar name				Cultivar types		
<a href="#">Stendes Dzeltenas</a>				<a href="#">CV</a>		
Breeder	Released	Approved	Marketing year	Withdrawn		
<a href="#">Stende</a>	<a href="#">1959</a>	<a href="#">1964</a>	<a href="#">1964</a>	<a href="#">1991</a>		
Purdy_pedigree						
<a href="#">Dzintara*Uzvara/Sovetskij</a>						
<b>Accession</b>						
Accession name	Accession name Latvian	Accession number	Mandate	GeneBank	Origin country	Cultivar type
<a href="#">Stendes Dzeltenas</a>	<a href="#">Stendes Dzeltenās</a>	<a href="#">LVA00025</a>	<a href="#">ACC</a>	<a href="#">Silava</a>	<a href="#">Latvia</a>	<a href="#">CV</a>
Donor institute				Donor country		
<a href="#">State Stende Plant Breeding Station</a>				<a href="#">Latvia</a>		
<b>Accession details</b>						
Genebank			Latvian State Forestry Research Institute 'Silava',			
Accession number			<a href="#">LVA00025</a>			
Accession name			<a href="#">Stendes Dzeltenas</a>			
Origin country			<a href="#">Latvia</a>			
Accession mandate code			<a href="#">ACC</a>			
Cultion type			<a href="#">Advanced Cultivar</a>			
Donor institute			<a href="#">State Stende Plant Breeding Station</a>			
Donor institute acronym			<a href="#">Stende</a>			
Donor country acronym			<a href="#">LVA</a>			
Breeder institute			<a href="#">State Stende Plant Breeding Station</a>			
Breeder institute acronym			<a href="#">Stende</a>			
Breeding remarks			<a href="#">Breeders: N.Konrāds</a>			
Last updated			<a href="#">2007-07-04 by A_Gailite</a>			





**SILAVA**

SESTO	Trait (C&E)	References	Utilities	User Manual	Links		
Genus		Taxons		Accessions			[Search]
<b>Taxon</b>							
<u>Scientific Name</u>		<u>Authority</u>	<u>Family</u>	<u>English name</u>	<u>IT PGR Annex 1</u>	<u>Latvian name</u>	
Avena sativa		L.	Poaceae	Oat	TRUE	auzas	
<b>Cultivar</b>							
<u>Advanced cultivar name</u>					<u>Cultivar types</u>		
Stendes Dzeltenas					CV		
<u>Breeder</u>	<u>Released</u>	<u>Approved</u>		<u>Marketing year</u>		<u>Withdrawn</u>	
Stende	1959	1964		1964		1991	
<u>Purdy_pedigree</u>							
Dzintara*Uzvara/Sovetskij							
<b>Accession</b>							
<u>Accession name</u>	<u>Accession name Latvian</u>		<u>Accession number</u>	<u>Mandate</u>	<u>GeneBank</u>	<u>Origin country</u>	<u>Cultivar type</u>
Stendes Dzeltenas	Stendes Dzeltenās		LVA00025	ACC	Silava	Latvia	CV
<u>Donor institute</u>					<u>Donor country</u>		
State Stende Plant Breeding Station					Latvia		
<b>Accession details</b>			<b>Stored material</b>			<b>Collecting site</b>	
<b>Stored Seed Samples (Batch)</b>							
<u>Batch</u>	<u>Harvest</u>	<u>Received</u>		<u>Design</u>	<u>Gener</u>	<u>Plno</u>	
1	1997	1997-11-03					

Accession number :



Explanation to the codes and abbreviations above , **Batch**: The batch number is a running number per accession used to identify the individual seed samples stored. Each regeneration of seed material results in a new harvest year and a new batch number., **Seeds**: Indicate the number of seeds stored in each collection. The number is calculated from the thousand grain weight registered for each species.

SESTO application by Nordic Genetic Resource Center (NordGen) © GPL 2.0 [SESTO tutorial] [SESTO User manuals]

You are not logged in [LOGIN FORM] Scope: lva [change] Language: eng

Your web broser is Firefox.





SESTO	Trait (C&E)	References	Utilities	User Manual	Links				
Genus		Taxons		Accessions					
[Search]									
Taxon			[Select to edit]						
Scientific Name	Authority	Family	English name	IT PGR Annex 1	Latvian name				
<a href="#">Avena sativa</a>	<a href="#">L.</a>	<a href="#">Poaceae</a>	<a href="#">Oat</a>	<a href="#">TRUE</a>	<a href="#">auzas</a>				
Cultivar			[Select to edit]						
Advanced cultivar name			Cultivar types						
<a href="#">Stendes Dzeltas</a>			<a href="#">CV</a>						
Breeder	Released	Approved	Marketing year	Withdrawn					
<a href="#">Stende</a>	<a href="#">1959</a>	<a href="#">1964</a>	<a href="#">1964</a>	<a href="#">1991</a>					
Purdy_pedigree									
<a href="#">Dzintara*Uzvara/Sovetskij</a>									
Accession edit: [accession] [donor] [breeder] [admin] [designations] [groups] add: [batch] [image]									
Accession name	Accession name Latvian	Accession number	Mandate	GeneBank	Origin country	Cultivar type			
<a href="#">Stendes Dzeltas</a>	<a href="#">Stendes Dzeltas</a>	<a href="#">LVA00025</a>	<a href="#">ACC</a>	<a href="#">Silava</a>	<a href="#">Latvia</a>	<a href="#">CV</a>			
Donor institute				Donor country					
<a href="#">State Stende Plant Breeding Station</a>				<a href="#">Latvia</a>					
Accession details		Stored material		Collecting site					
Stored Seed Samples (Batch)									
Batch	Harvest	Received	Design	Gener	Plno				
<a href="#">1</a>	<a href="#">1997</a>	<a href="#">1997-11-03</a>			<a href="#">[edit]</a>				
Active Storage add: [add batch to activ]									
Batch	Stored	Freezer	Shelf	box	DisBags	DisBSee	Weight	Seeds	
<a href="#">1</a>	<a href="#">1999-01-24</a>	<a href="#">2</a>	<a href="#">3</a>	<a href="#">72</a>	<a href="#">9</a>	<a href="#">250</a>	<a href="#">69 g</a>	<a href="#">1747<sup>1</sup></a> <a href="#">[edit]</a>	
Base Storage add: [add batch to base]									
Batch	Stored	Freezer	Shelf	CarBox	Bags	Weight	Seeds		
<a href="#">1</a>	<a href="#">1999-01-24</a>	<a href="#">1</a>		<a href="#">3</a>	<a href="#">2</a>	<a href="#">400 g</a>	<a href="#">10127<sup>1</sup></a> <a href="#">[edit]</a>		
Safe Storage add: [add batch to safe]									
Batch	Stored date	DuplSite	Stored Material						
<a href="#">1</a>	<a href="#">1998-11-15</a>	<a href="#">SWE034</a>	<a href="#">Seeds</a> <a href="#">[edit]</a>						
Germination Tests add: [add gm test]									
Batch	Grm	Test date	Seeds	Nrm	Hrd	Abn	Dead	MC	SubCol
<a href="#">1</a>	<a href="#">96 %</a>	<a href="#">1999-09-17</a>	<a href="#">100</a>	<a href="#">96</a>		<a href="#">1</a>	<a href="#">3</a>		<a href="#">active</a> <a href="#">[edit]</a>
<a href="#">1</a>	<a href="#">91 %</a>	<a href="#">2000-04-20</a>	<a href="#">95</a>	<a href="#">91</a>		<a href="#">1</a>	<a href="#">3</a>		<a href="#">active</a> <a href="#">[edit]</a>
<a href="#">1</a>	<a href="#">94 %</a>	<a href="#">2007-03-02</a>	<a href="#">100</a>	<a href="#">94</a>	<a href="#">2</a>	<a href="#">4</a>			<a href="#">active</a> <a href="#">[edit]</a>
Thousand Grain Weights add: [add tgw test]									
Batch	TGW	Test date	Seeds used						
<a href="#">1</a>	<a href="#">39.5 gram</a>	<a href="#">2006-11-21</a>	<a href="#">[edit]</a>						

Accession number :  ◀ ▶

# Descriptor evaluation and characterization data

---



- Platforms for entering and maintaining the plant descriptor data have been established for 46 species.
- Data for 618 accessions from 12 species is currently stored in the database.
- Existing data can be viewed for each accession or as a summary table for each year's data for all samples.

# Descriptors



## Field crops (8)

wheat (*Triticum aestivum* L.);  
oat (*Avena sativa* L.);  
barley (*Hordeum vulgare* L.);  
rye (*Secale cereale* L.);  
triticale ( $\times$  *Triticosecale* Wittm.);  
pea (*Pisum sativum* L.);  
potato (*Solanum tuberosum* L.);  
flax (*Linum usitatissimum* L.).

## Forage grasses (16)

red clover (*Trifolium pratense* L.);  
alsike clover (*Trifolium hybridum* L.);  
timothy (*Phleum pratense* L.);  
meadow fescue (*Festuca pratensis* Huds.);  
common ryegrass (*Lolium perenne* L.).  
alfalfa (*Medicago sativa* L.)  
white clover (*Trifolium repens* L.)  
oriental goat's rue (*Galega orientalis* Lam.)  
hybrid ryegrass (*Festulolium*)  
meadow foxtail (*Alopecurus pratensis* L.)  
reed canarygrass (*Phalaroides arundinacea* (L.) Rauschert (*syn.*  
*Phalaris arundinacea* L.);  
common vetch (*Vicia sativa* L.);  
tall fescue (*Festuca arundinacea* Schreb.);  
black bent (*Agrostis alba* L.);  
orchard grass (*Dactylis glomerata* L.)

# Descriptors



## Vegetables (5)

- garlic (*Allium sativum* L.);
- onion (*Allium cepa* L. subsp. *agregatum*);
- melon (*Cucumis melo* L.);
- tomato (*Lycopersicon esculentum* L.);
- cucumber (*Cucumis sativus* L.).

## Fruits and berries (13)

- pears (*Pyrus communis* L.);
- raspberries (*Rubus idaeus* L.);
- strawberries (*Fragaria* × *ananassa*);
- gooseberries (*Ribes grossularia* L.);
- rowan (*Sorbus* sp.);
- grapes (*Vitis vinifera* L., *Vitis labrusca* L.);
- hazel trees (*Corylus avellana* L.);
- sea buckthorns (*Hippophae rhamnoides* L.);
- black currant (*Ribes nigrum* L.);
- plum (*Prunus domestica* L.);
- wild apricot (*Armeniaca vulgaris* L.);
- Japanese quince (*Chaenomeles japonica* L.);
- red currant (*Ribes rubrum* L.).

# Descriptors

---



## Spice and medicinal plants (4)

- catmint (*Nepeta catarica* L.);
- spearmint (*Mentha spicata* L. em. L.);
- caraway (*Carum carvi* L.);
- lemon balm (*Melissa officinalis* L.).

# Descriptor data



Microsoft Visual FoxPro

File Edit View Tools Program Window Help

Līnu raksturošanas un novērtēšanas deskriptori

**Linum usitatissimum L.**

Nosaukums: Ošupes 30      LGB numurs: LVA00035      Novērtēšanas gads: 2008

III/1 Auga habitus: 4 Stāvs      III/16 1000 sēklu masa (g): 5.55

III/2 Auga dzīves cikls: 1 Viengadīgs      III/17 Sēklu krāsa: 5 Brūna

III/3 Auga garums: 5 Vidējs      III/18 Veldres izturība: 7 Laba

III/4 Stiebra garums: 5 Vidējs      III/19 Uzņēmība pret Fusarium: 1 Ļoti zema

III/5 Zieds: vainaglapu lielum: 5 Vidējās      III/20 Veģetācijas periods (fīz. nobriešana): 3 Agrs

III/6 Zieds: forma: 1 Parasta      III/21 Ziedēšanas sākums: 04.07

III/7 Kauslapu punkējums: 1 Nav vai ļoti vājš      III/22 Šķiedras saturs stiebrā: 7 Augsts

III/8 Ziedlapu krāsa, vainaga krāsa, kad zieds pilnīgi atvēries: 2 Gaīši zila      III/23 Šķiedras raža: 7 Augsta

III/9 Ziedlapas atlocīšanās: 1 Nav raksturīga      III/24 Sēklu raža: 9 Ļoti augsta

III/10 Putekšņņu krāsa: 2 Zilas      III/25 Eļļas saturs:

III/11 Putekšņlapu kātiņa krāsa: 2 Zila      III/26 Eļļas raža:

III/12 Augļeniņas krāsa pie pamatnes: 2 Zila      III/27 Linoleniskābes saturs:

III/13 Pogaļas tips: 9 Neatveras      III/28 Ploiditāte:

III/14 Pogaļas lielums: 5 Vidēja      III/29 Uzņēmība pret rūsu: 1 Ļoti zema

III/15 Pogaļas: matiņi uz starpstienām: 1 Nav raksturīgi

Piezīmes:

Citoloģiskais raksturojums un identifikātie gēni:

Molekulārie marķieri:

Pirmais    Pēdējais    Nākošais    **Iepriekšējais**    Jauns    Labot    Meklēt    Pārskali    Beigt

Lin: Record No. 103      NUM

Microsoft Visual FoxPro

File Edit View Tools Program Window Help

Deskriptori

Suga: Linum usitatissimum L.      Lini

Apskaiti pa vienam

Statistika

Meklēt

Parametrs	Vērtība	Apraksts	Skaits	Procenti
III/16 1000 sēklu masa	93			
Auga habituss	4	Stāvs	93	100.00
Auga dzīves cikls	1	Viengadīgs	93	100.00
Auga garums	1	Ļoti īss	15	16.13
Auga garums	3	Īss	40	43.01
Auga garums	5	Vidējs	20	21.51
Auga garums	7	Garš	18	19.35
Stiebra garums	1	Ļoti īss	16	17.20
Stiebra garums	3	Īss	32	34.41
Stiebra garums	5	Vidējs	25	26.88
Stiebra garums	7	Garš	18	19.35
Stiebra garums	9	Ļoti garš	2	2.15
Zieds: vainaglapu lielum	5	Vidējās	86	92.47
Zieds: vainaglapu lielum	7	Lielas	7	7.53
Zieds: forma	1	Parasta	93	100.00
Kauslapu punkējums	1	Nav vai ļoti vājš	90	96.77
Kauslapu punkējums	5	Vidējs	3	3.23
Ziedlapu krāsa, vainaga krāsa, kad zieds pilnīgi atvēries	1	Balta	6	6.45

Lin: Record No. 103      NUM

# Data in the ECPGR Central Crop Databases

---



- Barley,
- Dactylis,
- Festuca,
- Lolium,
- Medicago,
- Phleum,
- minor grasses,
- Poa,
- Pisum,
- Wheat

Thank you  
for your attention!

