CWR in situ data into EURISCO

ECPGR CWR WG meeting 13-15 December 2022 Rob van Treuren





Summary of main principles

National inventories of CWR in situ

- Data collecting on species & populations
- Selection of potentially accessible populations
- Transfer of data to agreed format (descriptor list)
- Uploading to EURISCO





National inventory

Crop group	Common	Red List	Total
Cereals	18	5	23
Vegetables	34	17	51
Fruits	20	4	24
Oil crops	9		9
Herbs	5	4	9
Leguminous crops	15	7	22
Sugar crops	1		1
Others	59	16	75
Total	161	53	214



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Inventory and prioritization for the conservation of crop wild relatives in The Netherlands under climate change



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Data collection

Main sources

- National Databank Flora & Fauna (NDFF)
- Floristic Research The Netherlands (FLORON)





Home
CWR per crop
CWR by English name
CWR by botanical
name
About CWRnl



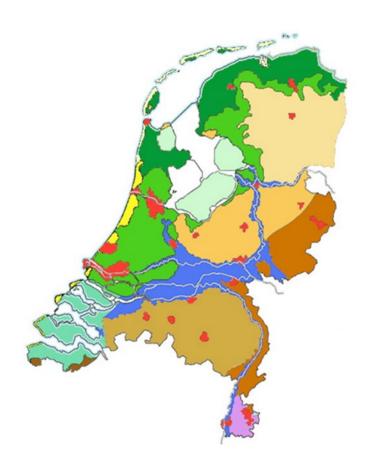
Crop Wild Relatives (CWR) in the Netherlands

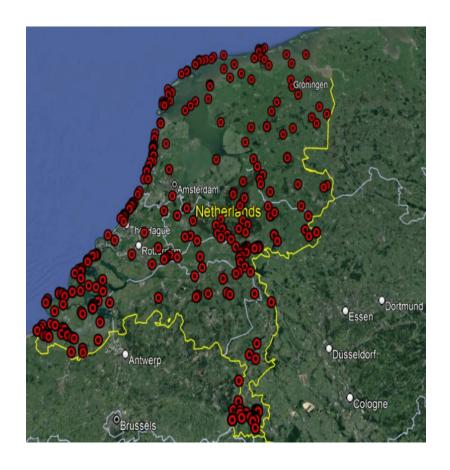
Cultivated crops produce the main part of our daily food. Changes in environmental conditions, for example as a result of the changing climate or the appearance of new diseases, may endanger food production and thus call for better adapted crop varieties. Therefore, our food security relies on the availability of the necessary traits for crop improvement, which often can no longer be found in the cultivated gene pool. Fortunately, wild plant species related to cultivated crops (CWR) constitute a rich source of potentially useful traits, which can be introduced in cultivated crops through plant breeding. Because the continued existence of many wild plant species is uncertain due to influences such as pollution, urbanisation and climate change, it is of the utmost importance that CWR do not get lost and remain available for crop improvement. Prior to the development of protective measures, one first has to know which CWR are actually occurring within national boundaries. For the economically most important agricultural and horticultural crops, CWRnI presents the results of a CWR inventory in the Netherlands.

Website: CWRnl.nl



Population selection for Red List CWR





Flora districts

Selected populations ($n=\sim300$)



Data preparation for EURISCO

Taxon level information

					1 -		_						
	Α	В	С	D	E	F	G	Н	I	J	K	L	М
	TAXONID	FAMILY	GENUS	SPECIES	SPAUTHOR	SUBTAXA		_			NATIONAL_CAT	LEGSTATUS	DISTSTATUS
	GRIN:9445	Fagaceae	Castanea	sativa	Mill.			CWR	Castanea crenata Siebold & Zucc.;Castanea den	GP1	LC		
	GRIN:466032			hybridum	(L.) S. Fuentes-B., Uotila & Borsch			CWR	Chenopodium quinoa Willd. ssp. quinoa		LC		
55	GRIN:466031			murale	(L.) S. Fuentes-B., Uotila & Borsch			CWR	Chenopodium quinoa Willd. ssp. quinoa		EN		
56	GRIN:10178	Amaranthaceae	Chenopodium	album	L.			CWR	Chenopodium quinoa Willd. ssp. quinoa		LC		
57	GRIN:401607			ficifolium	Sm.			CWR	Chenopodium quinoa Willd. ssp. quinoa	GP3	LC		
58	GRIN:10196	Amaranthaceae	Chenopodium	vulvaria	L.			CWR	Chenopodium quinoa Willd. ssp. quinoa		EN		
59	GRIN:10543	Asteraceae	Cichorium	intybus	L.			CWR	Cichorium endivia L. ssp. endivia;Cichorium int	GP1	LC		
60	GRIN:475326	Brassicaceae	Coincya	monensis	(L.) Greuter & Burdet	ssp. cheiranthos	(Vill.) C. Aedo Perez, E.A. L	CWR	Brassica napus L.;Brassica nigra (L.) W.D.J. Koch;	GP2	LC		
61	GRIN:450401	Rosaceae	Comarum	palustre	L.			CWR	Fragaria ×ananassa Duchesne ex Rozier	GP3	LC		
62	GRIN:11643	Betulaceae	Corylus	avellana	L			CWR;WFP	Corylus avellana L.;Corylus colurna L.	GP1	LC		
63	GRIN:12013	Brassicaceae	Crambe	maritima	L.			CWR	Crambe hispanica L.		LC		
64	GRIN:12848	Poaceae	Cynodon	dactylon	(L.) Pers.			CWR	Cynodon dactylon (L.) Pers.	GP1	LC		
65	GRIN:13019	Fabaceae	Cytisus	scoparius	(L.) Link			CWR	Cytisus cajan L.		LC		
66	GRIN:315496	Poaceae	Dactylis	glomerata	L.	ssp. glomerata		CWR	Dactylis glomerata L. ssp. glomerata	GP1	LC		
67	GRIN:300172	Apiaceae	Daucus	carota	L.			CWR	Daucus carota L. ssp. sativus (Hoffm.) Schübl. &	GP1	LC		
68	GRIN:13568	Brassicaceae	Descurainia	sophia	(L.) Webb ex Prantl			CWR	Brassica napus L.	GP3	LC		
69	GRIN:14029	Poaceae	Digitaria	ischaemum	(Schreb.) Muhl.			CWR	Digitaria exilis (Kippist) Stapf;Digitaria iburua S	tapf	LC		
70	GRIN:14103	Poaceae	Digitaria	sanguinalis	(L.) Scop.			CWR	Digitaria exilis (Kippist) Stapf;Digitaria iburua S	tapf	LC		
71	GRIN:319694	Brassicaceae	Diplotaxis	muralis	(L.) DC.			CWR	Brassica juncea (L.) Czern.;Brassica napus L.;Bra	GP3	LC		
72	GRIN:316651	Brassicaceae	Diplotaxis	tenuifolia	(L.) DC.			CWR	Brassica juncea (L.) Czern.;Brassica napus L.;Bra	GP1	LC		
73	GRIN:14823	Poaceae	Echinochloa	crus-galli	(L.) P. Beauv.			CWR	Echinochloa esculenta (A. Braun) H. Scholz	GP1	LC		
74	GRIN:32016	Poaceae	Elymus	caninus	(L.) L.			CWR	Triticum aestivum L.	GP3	LC		
75	GRIN:1835	Poaceae	Elymus	farctus	(Viv.) Runemark ex Melderis	ssp. boreoatlanticus	(Simonet & Guinochet) Me	CWR	Triticum aestivum L.	GP3	LC		
76	GRIN:316670	Brassicaceae	Erucastrum	gallicum	(Willd.) O.E. Schulz			CWR	Brassica carinata A. Braun; Brassica juncea (L.) Ca	GP2	VU		
77	GRIN:461553	Poaceae	Festuca	arenaria	Osbeck			CWR	Festuca rubra L.		LC		
78	GRIN:402520	Poaceae	Festuca	filiformis	Pourr.			CWR	Festuca rubra L.		LC		
79	GRIN:317897	Poaceae	Festuca	lemanii	Bastard			CWR	Festuca rubra L.		LC		
80	GRIN:16718	Poaceae	Festuca	rubra	L.			CWR	Festuca rubra L.	GP1	LC		
81	GRIN:257	Rosaceae	Fragaria	moschata	Duchesne			CWR	Fragaria ×ananassa Duchesne ex Rozier	GP3	CR	NAT	
82	GRIN:264	Rosaceae	Fragaria	vesca	L.			CWR	Fragaria ×ananassa Duchesne ex Rozier	GP3	NT		
83	GRIN:475406	Apiaceae	Helosciadium	inundatum	W.D.J. Koch			CWR	Apium graveolens L.		EN		
	GRIN:464221	Apiaceae	Helosciadium	nodiflorum	(L.) Koch			CWR	Apium graveolens L.		LC		
	GRIN:464223	Apiaceae	Helosciadium	repens	(Jacq.) Koch			CWR	Apium graveolens L.		CR	HAB;NAT	
	GRIN:19312	Poaceae	Hordeum	marinum	Huds.			CWR	Hordeum vulgare L.;Secale cereale L.;Triticum a	GP3	EN		
87	GRIN:19314	Poaceae	Hordeum	murinum	L			CWR	Hordeum vulgare L.	GP3	LC		



Next steps

- Population level information
 - Selected populations Red List CWR
 - Common species (status LC)?
- Uploading to EURISCO

