



NEMZETI ÉLELMISZERLÁNC-BIZTONSÁGI HIVATAL

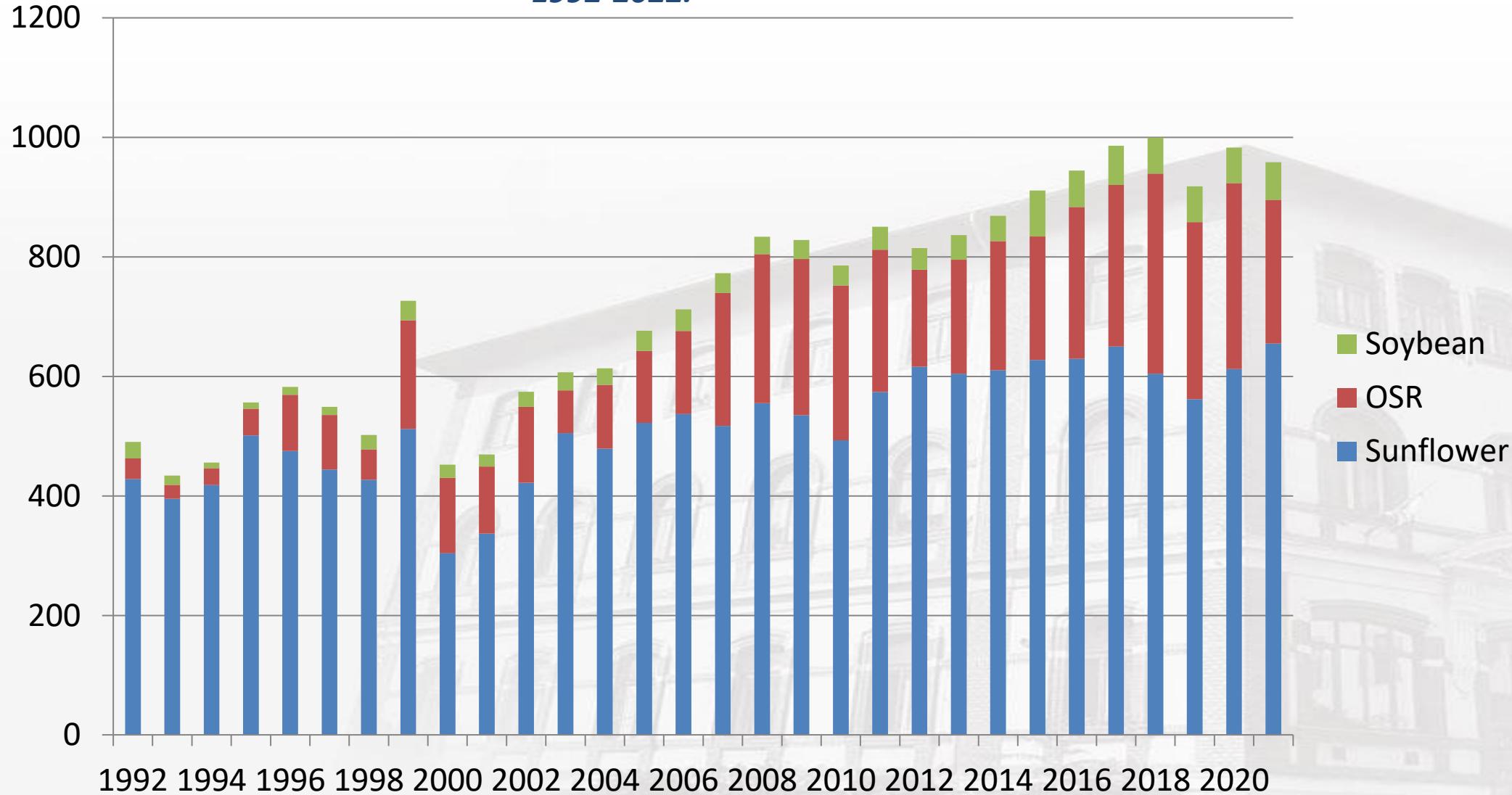
OSR Trials

April 28 ,2022.Euroseeds Meeting.

Gábor Szekrényes, National Food Chain Safety Office
Agricultural Genetic Resources Directorate

TORDAS

Thousands ha

*Area of oil crops in Hungary
1992-2022.*

Development of the national sown area of winter oilseed rape 2005-2022.

Thousand ha



Development of the national yield of winter oilseed rape 1992-2019.

Thousand t

1200

1000

800

600

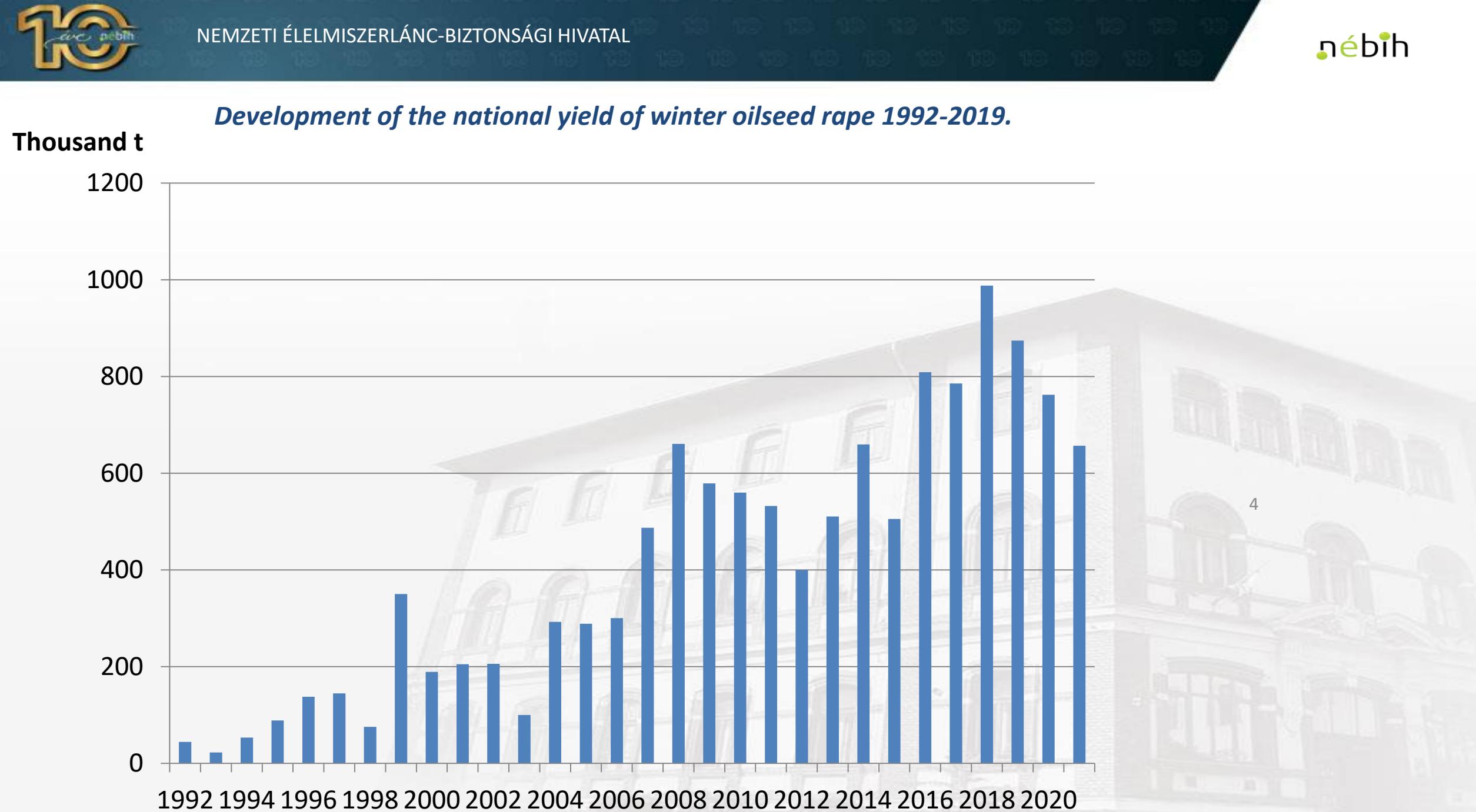
400

200

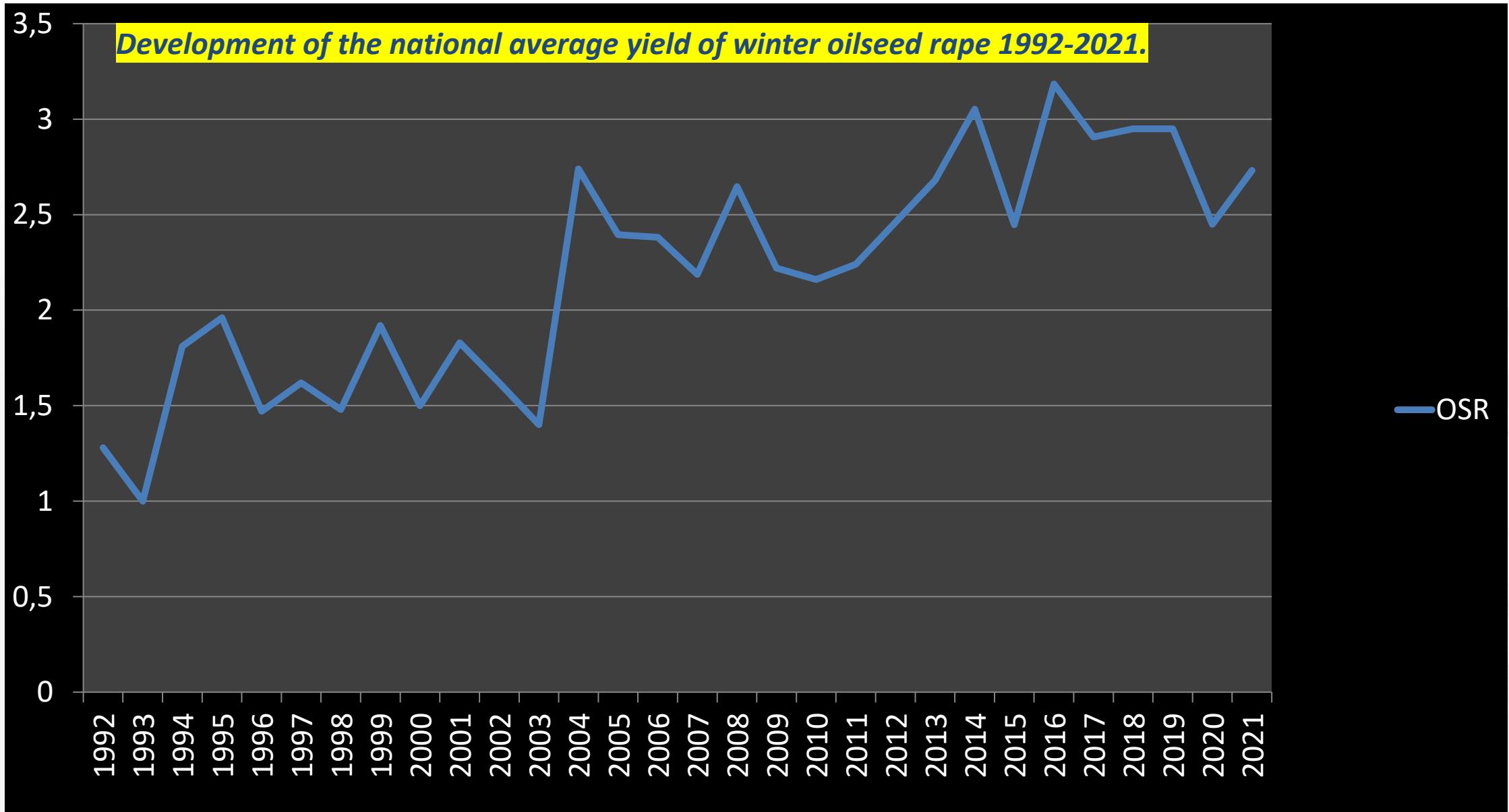
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1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016 2018 2020

4



t/ha



WINTER OILSEED RAPE VARIETIES IN VCU TEST 2021/2022.



	Trials	Varieties
11	Ealy H 1A	21
12	Early H 2A 3A	29
21	Medium H 1A	23
22	Medium H 2A	26
23	Medium H 3A	21
24	Early & Medium IMI H	23
26	Early/Medium H SD	14
27	HOLL	3
28	Runner	8
31	Early/Medium OP	7
40	SRV&EU/Early&Medium H	17
41	SRV&EU/Early & Medium IMI H	5
	Total:	197

Agent	Number of varieties
Rapool/NPZ,DSV	56
Bayer/Monsanto	36
Limagrain	26
KWS/Momont	25
BASF	15
Ragt	11
Lidea	10
Syngenta	7
Aliska	6
RWA	3
Karintia	1
Saatbau Linz	1
Total:	197

Runner

RUNNER as a New Crop – Definition of genetic composition

- One parent component SOSR
- One parent component WOSR
- The technical questionnaire should have this SOSR x WOSR category in addition to pure SOSR or WOSR hybrid applications.
- Since RUNNER is a New Crop, it cannot be directly compared for yield performance to another crop like SOSR or WOSR.

RUNNER as a New Crop – Characteristics

Trait	SOSR x WOSR	SOSR	WOSR
Vernalization	Medium (4 Weeks)	No	High (8 Weeks)
Sowing time	14 days after WOSR	Spring	Autumn
Flowering	> 1 week before WOSR		
Maturity	> 1 week before WOSR		
Grain Yield	Medium	Low	High
Yield Progress	High	Best of SOSR	Best of WOSR

Newly listed OSR varieties 2022 (10.03.)

	Breeders reference	Denomination (listed varieties)	Type of variety	Breeder	Agent	Status
1	8EW0217	INV1377 CL	H/Medium/IMI	BASF Belgium Coordination Center Comm.V. BE	BASF Hungaria Kft., Budapest	2022
2	CWH500	Kyrielle	H/Early	Monsanto Technology, US	Bayer Hungaria Kft., Budapest	2022
3	CWH462	DK Expose	H/Medium	Monsanto Technology, US	Bayer Hungaria Kft., Budapest	2022
4	MH17HR272	Hanneli	H/Medium	KWS Momont Recherche Sarl., FR	KWS Magyarország Kft., Győr	2022
5	H9171466	KWS Arianos	H/Medium	KWS Saat SE, Einbeck, DE	KWS Magyarország Kft., Győr	2022
6	ESC18085	ES Desirio	H/Medium	Lidea France SAS, FR	Lidea Hungary Kft., Budapest	2022
7	LE16/318	Aganos	H/Early	Limagrain Europe SA, FR	Limagrain Hungária Kft., Budaörs	2022
8	LE19/428	LG Wagner	H/Early	Limagrain Europe SA, FR	Limagrain Hungária Kft., Budaörs	2022
9	LE18/350	LG Auckland	H/Early	Limagrain Europe SA, FR	Limagrain Hungária Kft., Budaörs	2022
10	LE18/349	LG Austin	H/Early	Limagrain Europe SA, FR	Limagrain Hungária Kft., Budaörs	2022
11	LE17/332	LG Aviron	H/Medium	Limagrain Europe SA, FR	Limagrain Hungária Kft., Budaörs	2022
12	LE18/406	LG Arnold	H/Medium	Limagrain Europe SA, FR	Limagrain Hungária Kft., Budaörs	2022
13	LE19/360	LG Corsica CL	H/Early/IMI	Limagrain Europe SA, FR	Limagrain Hungária Kft., Budaörs	2022
14	HRD394	RGT Banquizz	H/Early	RAGT 2n Center de Recherche, FR	RAGT 2n Center de Recherche, FR	2022
15	NPZ18205W11	Kasalla	H/Early	Norddeutsche Pflanzenzucht Hans Georg Lembke KG, DE	RAPOOL Hungária Kft., Lepsény	2022
16	WRH564	Tuba	H/Early	Deutsche Saatveredelung GmbH.,DE	RAPOOL Hungária Kft., Lepsény	2022
17	DMH511	Manhattan	H/Medium	Deutsche Saatveredelung GmbH.,DE	RAPOOL Hungária Kft., Lepsény	2022
18	NPZ19248W11	Triathlon	H/Medium	Norddeutsche Pflanzenzucht Hans Georg Lembke KG, DE	RAPOOL Hungária Kft., Lepsény	2022
19	WRH565	Desperado	H/Medium	Deutsche Saatveredelung GmbH.,DE	RAPOOL Hungária Kft., Lepsény	2022
20	DMH516	Lynx CL	H/Medium/IMI	Deutsche Saatveredelung GmbH.,DE	RAPOOL Hungária Kft., Lepsény	2022
21	DMH486	Drft CL	H/Medium/IMI	Deutsche Saatveredelung GmbH.,DE	RAPOOL Hungária Kft., Lepsény	2022

	Variety	Description			
		Yield of seed and yield of oil	Oil %	GLU umol/g	
1	8EW0217	INV1377 CL	Yield of seed 116,4%, yield of oil 114,6%	42,73	17,0
2	CWH500	Kyrielle	Yield of seed 107,1%, yield of oil 105,4%	42,37	13,5
3	CWH462	DK Expose	Yield of seed 116,5%, yield of oil 114,6%	41,72	16,8
4	MH17HR272	Hanneli	Yield of seed 110,6%, yield of oil 110,4%	42,31	16,9
5	H9171466	KWS Arianos	Yield of seed 104,6%, yield of oil 106,5%	43,05	17,8
6	ESC18085	ES Desirio	Yield of seed 108,8%, yield of oil 118,3%	46,10	13,8
7	LE16/318	Aganos	Yield of seed 111,8%, yield of oil 106,6%	40,96	16,3
8	LE19/428	LG Wagner	Yield of seed 118,9%, yield of oil 116,4%	42,23	16,6
9	LE18/350	LG Auckland	Yield of seed 116,2%, yield of oil 114,1%	42,17	14,5
10	LE18/349	LG Austin	Yield of seed 115,6%, yield of oil 116,1%	43,24	16,3
11	LE17/332	LG Aviron	Yield of seed 111,1%, yield of oil 105,0%	39,80	16,4
12	LE18/406	LG Arnold	Yield of seed 120,3%, yield of oil 122,3%	43,03	15,3
13	LE19/360	LG Corsica CL	Yield of seed 122,1%, yield of oil 118,7%	43,22	15,2
14	HRD394	RGT Banquizz	Yield of seed 103,0%, yield of oil 110,1%	45,69	15,2
15	NPZ18205W11	Kasalla	Yield of seed 105,0%, yield of oil 104,0%	42,36	16,8
16	WRH564	Tuba	Yield of seed 105,3%, yield of oil 111,8%	45,75	14,4
17	DMH511	Manhattan	Yield of seed 116,1%, yield of oil 117,3%	42,75	16,8
18	NPZ19248W11	Triathlon	Yield of seed 114,3%, yield of oil 114,7%	42,59	15,9
19	WRH565	Desperado	Yield of seed 109,7%, yield of oil 116,8%	45,19	16,8
20	DMH516	Lynx CL	Yield of seed 116,3%, yield of oil 112,8%	42,14	15,2
21	DMH486	Drift CL	Yield of seed 114,1%, yield of oil 110,7%	42,24	16,0

State registered varieties: :194

OP:7; H:187; IMI/26; SD/7

Type	Varieties
Early H	58
Medium H	92
Early IMI H	7
Medium IMI H	19
Very early H/SD	1
Early H /SD	3
Medium H /SD	3
HOLL Medium H	4
Total H:	187
Early OP	2
Medium OP	5
Total OP:	7

EU Common Catalogue:1340



OSR trials in 2022.**Early and medium hybrids group :**

Arsenal st. 2013 FR Limagrain

INV1170 st. 2019 DE BASF

DK Expression st. 2015 US Bayer

Hybrirock st. 2013 DE KWS

Umberto KWS st. 2016 DE KWS

Dynamic st. 2020 DE Rapool/DSV

Architect st. 2017 FR Limagrain

Seed and oil production values exceed the level of standards.

Early IMI and medium IMI hybrids group :

Clavier CL st. 2019 DE Rapool/NPZ

InV1266 CL st. 2019 DE BASF

DK Importer CL st. 2017 US Bayer

Phoenix CL st. 2015 DE Rapool/DSV

DK Impression CL st. 2013 DE Bayer/Rapool/DSV

Early HOLL and medium HOLL hybrids group:

V357OL st. 2017 Bayer

V353OL st. 2020 Bayer

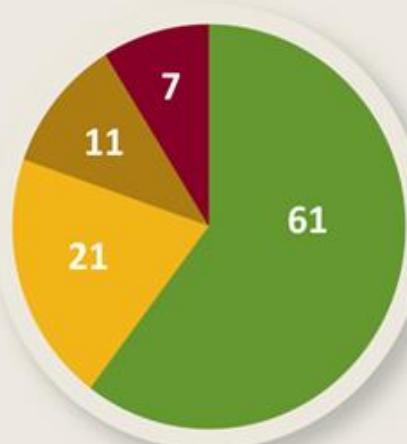
Early and medium OP varieties group :

Berny st. 2015 AT Karintia

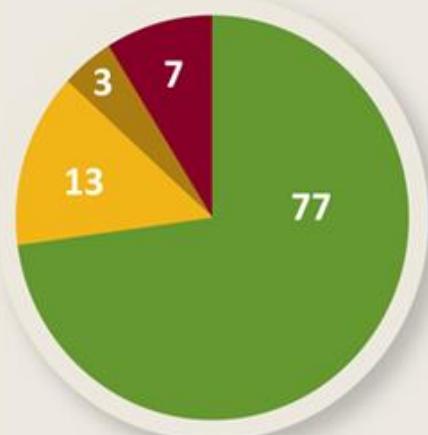
HIGH OLEIC AND LOW LINOLENIC (HOLL)

Fatty acids profile (%)

Regular OSR oil



HOLL OSR oil



■ Oleic [18:1]
■ Linoleic [18:2]
■ Linolenic [18:3]
■ Saturated fats

Figure 1. Adapted from Dubois et al. (2008) OCL, 15, 56-75⁰, internal Monsanto data for HOLL OSR

Fatty acid profiles of common edible oils

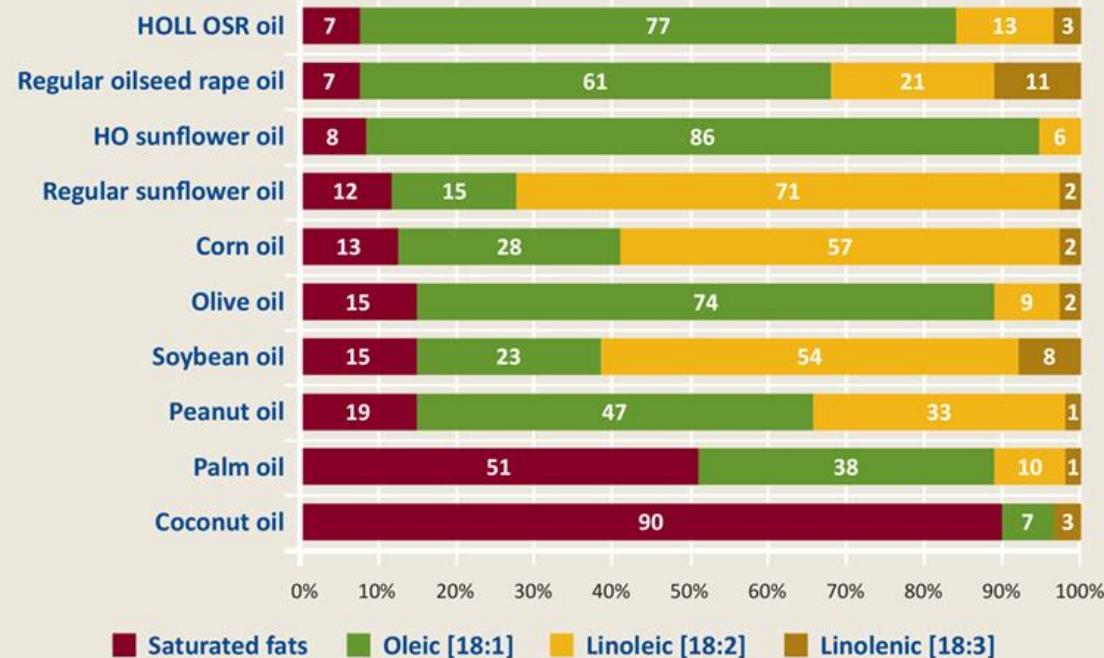


Figure 3: Adapted from Dubois et al. (2008) OCL, 15, 56-75⁰, Monsanto data for HOLL OSR oil

It was achieved by conventional breeding methods to provide an oilseed rape (OSR) oil with a specific fatty acid profile benefiting food processors, foodservice operators and consumers.

Tests:

Grain yield , observation in vegetation period /-Intensity of development,-Dead off,-Length of vegetation period,-Plant height,-Standingability,-Susceptibility to shedding

Phytopathological observations:

White stem rot of rape (*Sclerotinia sclerotiorum*)

Concerning the compulsory recorded diseases

(White stem rot of rape) it cannot be considerably susceptible (5).

Light leaf spot and stem rot disease of rape(*Phoma lingam*)

Winter resistance

Test of imazamox.

Internal content test standards for OSR

Simultaneous determination of oil and water content – MSZ EN ISO 10565:2000

Moisture content / calibration/ - MSZ EN ISO 665: 2001

Oil content / calibration/ - MSZ EN ISO 659 : 2000

Glycozinolat content – MSZ-08-1908-1989 MSZ EN ISO 9167-1 :2000

Eruka acid content: MSZ ISO 5508:1992

Crude protein content: MSZ 6830 4:1981

Unsaturated and saturated fatty acid content-MSZ EN ISO 5508 :1992 (HOLL)

OSR trials in 2022.

NIRS !



Thank you for your attention!

Szekrényes Gábor
témavezető

Nemzeti Élelmiszerlánc-biztonsági Hivatal

1024 Budapest, Keleti Károly utca 24.
+36/70/436-0662
szekrenyesg@nebih.gov.hu