The Importance of Plant Variety Protection for Farmers

IP Key SEA Act 13: Webinar on Plant Variety Protection and UPOV 1991

Derk Gesink 47 years old Married, 3 children

Education: Wageningen University 1993-1998



Seedpotatoes 90ha

HZPC Spunta, Innovator, Colomba



PotatoBreeding 0,5ha

HZPC

Winterwheat 60ha

Onions 15ha

Sugarbeets 15ha



Potato Breeding 0,5 ha











If I grew the varieties my grandfather grew...

Wheat yield would be 60% lower

Sugarbeet yield would be 150% lower.

Seed potato production would be impossible due to soil diseases

Why is PVP important for me as a farmer?

Who will produce new wheat or potato varieties without pvp?

I need new varieties because:

- Diseases adapt overtime
- Improvement of yield and stability
- Adaptation for new circomstances

EU: Farm to Fork



- 25% Ecological Production 2030
- Less and less chemical crop protection

Examples

Wheat

Potatoes





Wheat

Winterwheat 60ha

- Crop rotation
- Weedmanagement



Wheat

Farmer selects variety from dutch varietylist

- Independant, non governamental.
- Funded by Plantum and farmers association.

Farmers selection criteria:

- Yield
- Disease resistance (more and more inportant)
- Straw strengt and straw

Wheat: Dutch Variety list



Tabel 1. Overzicht van de raseigenschappen bij wintertarwe* gemiddelde resultaten over de jaren 2018 t/m 2021

						Resi	stentie	teger	1				Bakkw	aliteit ²⁾				
Rubricering ¹⁾		Lengte stro (rel)	Stevigheid	Vroegheid aar	Vroegrijpheid	Schot	Gele roest	Bruine roest	Meeldauw	Bladvlekkenziekte	Fusarium in de aar	Hectolitergewicht (rel)	Broodkwaliteit	Deegkwaliteit	Zelenywaarde	Korrelhardheid	Valgetal	Klassificatie
	ktarwe																	
Α		111	8,5	5,5	5,5	6,5	9,0	7,0	8,5	8,0	7,0	100		7,5	7,5	7,0	8,5	В
A	KWS Extase	97	8,0	8,0	7,0	7,0	9,0	7,0	8,0	8,5	6,5	102	7,0	8,5	7,0	7,0	8,5	B B B B
A	WPB Calgary	99	7,5	7,5	6,5	6,5	9,0	7,0	8,5	7,5	6,5	101	7,0	6,5	7,0	7,0	8,5	В
Α	WPB Durand	105	6,0	7,0	6,5	7,0	6,0	7,5	8,5	7,5	7,0	101	7,0	8,5	7,0	6,5	7,5	В
N	LG Lunaris	100	8,0	7,0	6,5	6,0	8,5	8,0	7,5	7,5	6,5	100	7,0	7,0	7,0	7,0	6,5	В
В	KWS Talent	112	7,5	7,5	7,0	7,0	5,5	7,5	7,5	6,5	7,0	103	7,0	6,5	7,0	7,5	8,5	В
В	RGT Reform	96	8,0	6,5	7,0	7,0	6,5	7,0	7,5	6,5	7,0	104	8,0	9,5	8,0	7,0	9,0	В
Vul	tarwe																	
	LG Cambria	105	8,0	6,0	6,0	7,0	9,0	7,5	8,0	7,5	6,5	100		6,0	7,0	7,5	8,0	Vu
A	LG Vertikal	99	8,5	6,0	6,5	7,0	7,5	7,5	6,0	6,5	6,5	100		5,5	6,0	6,5	6,5	Vu
N	Revolver	104	6,5	6,0	6,0	7,0	8,5	9,0	8,0	8,5	7,0	101	6,5	9,0	8,0	6,5	8,5	Vu
В	Stereo	95	8,0	7,0	7,0	7,0	6,0	8,5	7,0	7,5	6,5	102	6,5	6,0	7,0	7,0	6,5	Vu
Ove	erige tarwe																	
Α	Gleam	91	8,5	6,5	7,0	6,5	7,5	6,5	7,5	7,0	6,0	99						
Α	Toby	93	8,5	5,5	5,0	6,5	9,0	7,5	6,5	8,5	6,0	94						
N	Allison	109	7,0	5,5	5,0	7,5	9,0	7,5	8,5	8,5	7,0	99						
l N	Positiv	95	8.5	7.5	7.0	7.0	9.0	7.5	6.5	8.0	6.5	100						

Wheat and Farm Saved Seed(FSS)

www.eigenzaaizaad.nl

			-		
2.	Teelt u dit jaar granen?	✓ Ja			
		Nee	\rightarrow	ga door naar vraag 5	
3.	Maakt u hiervoor gebruik	van zaaizaad, dat	verkregen	is uit eigen graanoogst (FSS))?
		✓ Ja	\rightarrow	ga door naar vraag 4	
		Nee	\rightarrow	ga door naar vraag 5	
4.	Hoeveel zaaizaad, verkre voorjaarsuitzaai 2019 geb		noogst (FS	SS), heeft u tijdens de najaars	suitzaai 2018 én/of
	Ras		To	otaal kg eigen zaaizaad (FSS)	Oppervlakte ingezaaid met FSS
	Henrik			3.600 kg	20
	Expert			1.800 kg	10



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IBAN P. NL10ABNA0619565861

Gouda, 31 oktober 2019

FACTUURNUMMER DEBITEURNUMMER

190339

Hierbij brengen wij u het volgende in rekening wegens gebruik van eigen zaaizaad granen in najaar 2018 en/of voorjaar 2019. Het betreft de volgende rassen:

Graanrassen	aantal kg	tarief per 100 kg	bedrag in €	
Henrik	3.600	5,20	187.20	
Expert	1.800	5,20	93,60	

sub-totaal BTW 9% Totaal door u te voldoen

280.80 25,27 306.07

Betalingstermijn 30 dagen

Gaarne overmaken op IBAN nummer NL10ABNA0619565861 t.n.v. Plantum NL inzake FSS

FSS

Buy new seed: €0,65ct/kg Cost per ha €130



FSS : €0,20/kg (yield)+€0,15/kg (cleaning) +€0,052/kg (FSS)

Cost per ha €80



FSS cost are about €10/ha. Average winterwheat Yield is €1600/ha

Potatoes

Potato Y virus Yntn (PVY)
 Necrosis in tuber
 Most old varieties are susceptible

- Single gene resistance
- Can not be treated with chemicals



Photo by Dr. Steve Johnson, University of Maine Cooperative Extension.

Potatoes

Breeding for HZPC

50% share in revenues, 50% goes to HZPC

HZPC provides Germplasm, markers, marketing etc.

Revenues (Royalties) for me are net 1,40 euro/100kg.

50ha Seedpotatoes, average yield 30 ton/ha = 21.000 euro/year

250ha Seedpotatoes = 105.000 euro/year

Change of finding a variety is once every 20 year





Potatoes

Breeding your own variety

- Best adapted for your local environment
- Make new combination of local varieties with best foreign varieties
- Make a new businessmodel for your own farm!

Thanks to PVP it's profitable!