

Demonstration of carrot varieties based on organic seeds

Location: Limfjords Bio, Hobrovej 950, 9530 Støvring

Organic field

Gps: 56.94990, 9.85240

Seeding day: 02.06.2023

One bed of three rows of each variety.

18 meters plots, 14 different varieties, all with organic seed.

The variety Nairobi was seeded in the rows around the demonstration plot.

Seeding machine was calibrated to give 120 seed per meter row.



Germination test by HortiAdvice, March 2023

Variety	Lot no.	Germination energy	Germination		Remarks
		7 days	14 days	21	
Bollin	19729 L	65	75	79	
Brillinace		55	70	85	Alternaria
Dolciva	20237M	75	75	78	
Maistro		55	70	70	Alternaria
Napoli	1653933	55	75	75	Alternaria
Natuna		55	70	75	
Naval	1710301	50	65	75	
Negovia	1743530	65	75	80	Alternaria
Milan	19516 L	70	70	75	
Nipomo	1744059	65	75	75	
Octavo		45	65	70	Even more Alternaria
Romance		30	60	75	
Speedo		25	50	60	Alternaria
Vitella	17384 S	50	75	75	





Before seeding, the beds have been kept stale seedbed (falsk såbed) for two months and kept free of weed with a bed cleaner and burning.

Beds are 2 m's wide and with three rows.



16. June 2023

Just after germination.

It was extremely dry before and after seeding in 2023.

This has led to major germination problems in the plots. Especially in varieties with small seeds or seeds with low germination vitality.



6. July 2023
Uneven crop establishment caused by dry weather and differences in seed quality.
Missing rows in plots with Speedo.
And rows germinating in two steps in Brilliance, Dolciva, Naval, Negovia, Octavo, Romance and Vitella.
Milan does germinate before second step.
Surrounding field with Nairobi germinate quicker and more uniform than trial plots.



29. August 2023



Nairobi in surrounding field.
Demo plot in left side.

Unfortunately, the field had to be harvested with very short notice. For that reason, the demo plots were assessed 1. September, long before scheduled. The assessment is not a trial with replications and statistics, but just an assessment of the actual demonstration plots.

The differences in yield are not an expression of the yield potential of the varieties but more a result of the germination and seed vitality. Speedo had a very low field germination with just one row germination out of three. Milan did not germinate in the short time from seeding until the soil dried out. Milan germinated after rain had come.

Demonstration of organic seed of different varieties of carrots. Field assessment 1. september 2023

Variety	Phytoplasma	Leaf spot	Crop stand	Yield ¹⁾ estimated in field, ton/ha	Taste ²⁾
	pl/m row	point 0-9, 0 = non	point 1-9, 9=dense canopy		point 1-9, 9=bedst
Bollin	1	2	9	58	4
Maestro	3-4	1	9	38	4
Speedo	0	0-1	9	-	-
Romance	0	2	9	65	5
Naval	0,5	1	9	71	4
Brillyance	0	0	9	69	4
Octavo	0	1	9	60	4
Nipomo	2-3	2	9	68	4
Negovia	2	1-2	9	69	5
Vitella	3	3	9	61	3
Natuna	3	2	8	68	3
Napoli	0,5	3	8-9	70	5
Dolciva	4	2	9	48	3
Milan	0	0-1	9	15	4
Nairobi	1-2	6	7	60	6

¹⁾: rough estimate in the field based on 1 m row.

²⁾: Taste of quartered carrot pieces with skin.

Only few seed of Speedo manage to germinate in the plot.

Demonstration of organic seed of different varieties of carrots. Field assessment 1. September 2023

Variety	Comments
Bollin	Uneven size with both long and short roots as well as roots that are pointed and rounded at the tips. Some long-haired roots of phytoplasma. Light yellow core. Changing exterior color from light to dark orange. Coarse skin.
Maestro	Conical. Long roots. Smooth surface. Uniform. Many plants with phytoplasm, long-hardy roots and dwarfism.
Speedo	Pointed roots. Uniform.
Romance	Long roots. Uniform. Smooth. Rounded tips. None with phytoplasma.
Naval	Pointed roots and uneven in size and length. Intense orange internal color. Intense through-colored orange core. Nice dark color. A few marrow splits and few Cavity Spot.
Brillyance	Nice uniform roots. Slightly uneven length and several very long roots. Some with sand scrap on the skin. Few splits.
Octavo	Nice rounded tips. Tendency to become conical. Short roots and uneven length. Yellow lines in the core. Few with scab.
Nipomo	Nice rounded tips. Smooth. Large long roots. Many with phytoplasm and long-haired roots. Some leaf spot in the bottoms, stems and up of the leaves. Intense through-colored orange core.
Negovia	Uneven size, short thick, rounded tips. Intense internal orange core and dark orange skin.
Vitella	Uneven size. Mix of short and long. Thick and thin. Pointed and rounded. Quite a lot of leaf spot and many are sick with phytoplasm with long-haired roots. White-yellow core. Some roots with regrowth and white tips.
Natuna	Uneven length. Uneven tips with rounded and pointed ones. Smooth skin. A few with splits and scab.
Napoli	Large roots, long, rounded, cylindrical. Early variety which is over ripe at this time. Weak top.
Dolciva	Very uneven in both length, thickness and shape. Many with phytoplasm and long-haired roots. Internal white-yellow color. Few with rotten tip and crown. The crown is slightly grow in skin and color.
Milan	Small pointed and uneven size. No leaf spot of importance and only very few with phytoplasm. Pale-orange skin and white-yellow core.
Nairobi	Short, cylindrical but still pointed. Not ready for harvest. Weak top. Lots of leaf spot. Some with phytoplasma in the leaves. Through-colored orange in the core.



Bollin



Brillynce



Dolciva



Maestro



Milan



Napoli



Natuna



Naval



Negovia



Nipomo



Octavo



Romance



Speedo



Vitella

On 1. Sep. the occurrence of purple/yellow leaves caused by phytoplasma is very visible. Phytoplasma is probably spread by seed and cicadas.

Rain in July/August in combination with a field where there has been carrots grown before, has caused ideal conditions for leaf spot to develop. Brilliance is nearly free of leaf spot at the time.



Maestro with phytoplasma



Vitella with phytoplasma



Dolciva with phytoplasma



Vitella with leaf spot



Nairobi (standard)



Naval (dark orange color)



Bollin



Dolciva



Milan



Vitella



Maestro



Brilliance



Napoli



Natuna



Octavo



Romance



Negovia



Nipomo

LRM, 04.09.2023

Demo i gulerødder

HortiAdvice gennemføre i 2023 på en række gartnerier med produktion af økologiske gulerødder en demonstration af økologiske frø af gulerodssorter fra OXS.

Promilleafgiftsfonden
for frugtavlens og gartneribrug