

## **Crop Management in Denmark**

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### **Mechanical weed treatment in winterrape.**

Due to the political claim of reduction of the use of chemicals in the agriculture, increasing prices of sowing seed and still decreased number of approved chemicals have enforced the agriculture to grow winterrape in wide rows and hoe against weeds

### **Reaction within varieties on row spacing.**

Within the framework of the Farmers Union a series of experiments have started in order to evaluate, if different varieties react in a different way sown out at a row spacing of 12 cm compared to 50 cm.

The winterrape varieties Consort, Bruno, Elite, Acropolis, Orkan, Apex, Avant, Artus, Capitol and Express have been tested at the two row distances in 1999.

Almost the same yield were obtained in each variety with the two row distances, even if the varieties were different in yield. These experiments continues!

### **Sowing rates and row spacing with winterrape**

From 1997 to 1999 a series of trials have been conducted with different sowing rates and row spacing. ( Farmers Union).

In 1997 an ordinary sowing machine was compared with a band sowing machine ( beets) and with sowing rates of 1.25, 2.50 and 5.00 kg seed per ha combined with row distance of 12 cm and 50 cm. The best net yield in 1997 was band sowing, 2.50 kg seed per ha and row spacing 50 cm, but did not differ significantly from the other treatments. For 98 and 99, the results are shown below.

### **Comments:**

There was a demand for chemical treatment of volunteer plants, if more than 10 volunteer plants occurred per meter of row.

In 1999 volunteer plants have been treated with chemicals, so the yield effect did appear from different sowing rates and row spacing.

*Advice for the farmers when sowing in 50 cm wide rows :*

- free to choose among the best varieties
- establishment of a good seedbed is needed
- first hoeing has to take place, when rapeseed has two leaves, and second hoeing when rapeseed plants have reached the size when the soil can be pushed under their leaves and weed plants can be covered by the soil.

-volunteer plants have to be destroyed, if more than 10 volunteer plants per row meter occur, possibly by bandspraying.

-if needed, a hoeing can be done before the generative stage of the plants starts.

### Spring Rape

As for winterrape, varieties of spring rape have been tested to see, if they perform equal, sown at 12 cm or 50 cm row distances. Varieties tested were: Hero, Senator, Caviar, Licongo, Magnet, Hyola 401, Superior, Flamingo, Britta, Alesandra, Liaiason, Star, Orakel and Pluto.

All Varieties were quite equal in yield at the two row distances.

Sowing rates and different row distances in winterrape, 1998 and 1999.

Winterrape		Sowing rate, kg per ha	Rapeseed plants per m2		Volunteer plants per m2 autumn	Yield, kg per ha, std. Quality
			Autumn	Spring		
1999, 5 experiments						
1.	12 cm, ord.	5.00	58	69	3	3920
2.	12 cm, ord.	2.50	38	48	3	3680
3.	12 cm, ord.	1.25	25	23	3	3450
4.	50 cm, ord.	2.50	26	47	3	3790
5.	50 cm, ord.	1.25	17	21	3	3490
6.	50 cm, band	2.50	26	32	2	3920
7.	50 cm, band	1.25	17	22	3	3660

LSD,95

340

1998, 5 experiments, many volunteer plants

1.	12cm, ord.	5.00	81	64	29	3870
2.	12 cm, ord.	2.50	52	50	28	3600
3.	12 cm, ord.	1.25	32	31	29	3430
4.	50 cm, ord.	2.50	32	26	28	3520
5.	50 cm, ord.	1.25	16	14	31	2710
6.	50 cm, band	2.50	35	28	28	3350
7.	50 cm, band	1.25	17	15	32	2940

LSD,95

480

1998, no.of experiments, (few volunteers) 8 7 8 8

1.	12 cm, ord.	5.00	92	77	4	3900
2.	12 cm, ord.	2.50	61	53	5	3920
3.	12 cm, ord.	1.25	32	34	5	3740
4.	50 cm, ord.	2.50	34	28	3	3720
5.	50 cm, ord.	1.25	22	17	5	3600
6.	50 cm, band	2.50	44	34	5	3760
7.	50 cm, band	1.25	28	23	6	3890

LSD,95

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