

## WINTER OIL SEED RAPE HYBRIDS -

### THE FUTURE FOR SWEDISH OIL SEED GROWING

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In 1998, the oil seed crop showed its potential in Sweden. Many growers at least in southern Sweden did receive a winter oil seed rape yield in the level of 4 ton/ha. The average yield in 1998 for winter oil seed rape was 3,2 ton/ha, which is a very good level for Swedish growing conditions. Normally, the average yield amounts to 2,7 ton/ha.

The main reasons for this good level are the following:

- **Almost no winter killing.**
- **A rather wet and not too warm spring**, which stimulated the branching of winter oil seed rape.
- **Low disease pressure in most regions.** In southern Sweden, the main fungal disease is *Verticillium wilt* which is not possible to control with registered fungicides. The weather during the growing season 1997/1998 did not seem to suit *Verticillium*. Also infection by *Sclerotinia* was low, at least compared to 1996 and 1997.

If oil seed rape is to remain an important crop in Sweden, the yield level of 1998 must not be a coincidence. As most readers know, the Agenda 2000 has put oil seed rape cultivation under a special pressure. From the year 2002 and onward the area payment will be the same for cereals and oil seed rape. This means that in the competition between crops in the crop rotation the yield level will be even more important.

For physiological reasons, oil seed rape is less competitive than cereals in the northern parts of Europe, compared to what is the case in UK, Germany or France.

That is why a varietal improvement in oil seed rape is especially urgent for our growing region.

#### ***Hybrids - the future?***

With winter oilseed rape hybrids we might receive the yield increase needed to maintain oil seed rape cultivation in Sweden. It seems that hybrids are particularly suitable in the northern growing areas. They show a better vigour and start growing

earlier in the spring. You will find below the results of variety testing with winter oil seed rape in Sweden over the last years.

### **Swedish variety testing in winter oil seed rape.**

#### **Check variety *NPZ Express*.**

Variety	Number of trails	Experimental year	Seed yield <b>rel. Express</b>	Oil content dif. Express
NPZ Kasimir H	79	94-98	<b>113</b>	-1,7
NPZ Artus H	24	96-98	<b>123</b>	-2,1
NPZ Kronos H	14	97-98	<b>128</b>	-1,5
PHP CH 96005 H	27	97-98	<b>125</b>	-0,9
MLCH Capitol	33	96-98	<b>106</b>	-1,9
Se Silvia	76	94-98	<b>101</b>	-0,5

Four hybrids: Kasimir, Artus, Kronos and PHP CH 96005 and two conventional varieties were compared to Express. Kasimir, which was the first tested hybrid in Sweden, has a good winterhardiness but the yield level is not so impressive. Kasimir is best suited for the northern growing areas. The second generation of hybrids represented by Artus, Kronos and PHP CH 96005 showed approximately a 25 % yield increase over Express.

Capitol and Silvia which are with Express the most cultivated winter oil seed rape varieties in Sweden have only a few percent yield increase over Express.

#### ***Expensive seed cost***

Now we have to bear in mind that the seed cost is rather high for hybrids.

Even if Swedish field experiments showed that we could reduce seed rates by 20-30 % compared to conventional varieties, the increased seed cost still needs a yield increase of 6-8 %. Hybrids have so far showed that this seemed to be no problem.

Finally we have to remember there is a rather low number of trials and few experimental years. However, the results from the field trials so far give the Swedish winter oil seed rape growers hope for the future. Now we also hope to see at least the same improvement in spring oil seed rape.