

## DATA COLLECTION ON RAPE SEED PRODUCTION FOR THE ADVISORY SERVICE IN UPPER AUSTRIA

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## ABSTRACT

The chamber of agriculture in Upper Austria has worked out special questionnaires which were sent to rape farmers. By means of this feed back it was possible to calculate the marginal income (gross margin) of rape cultivation. In addition to that, the questionnaires brought important information for the right timing of application of insecticides and fungicides. They showed that the warnings of the plant protection adviser were correct and worth to be followed. This data collection shows, if special treatments (for example application of fungicides) are economical, which is very important with EU prices.

## INTRODUCTION

The chamber of agriculture of Upper Austria has been working for years on questionnaire systems for special agronomic problems for example problems of rape cultivation. In 1993 for the first time a questionnaire was sent to all farmers with more than 2 ha of rape. Detailed questions were put about the technique of production.

## EXPERIMENTAL

As the results seemed of great importance and the participation and interest of the farmers were great the questioning was started again in 1994 in order to base the results during several years and to calculate the gross margin for each farmer and on the average for 3 groups. 25 % top group, 50 % middle group and 25 % end group. For such an economical calculation it was necessary to ask for the seed rate, yield, the amount of fertilizer also farm manures, and fungicides, insecticides, herbicides with the precise date of application.

Tab. 1 shows the costs which were regarded for the calculation of the gross margin. For the amount of available nutrients in farm manures the prices of mineral fertilizers were calculated. 398 questionnaires were evaluated in all covering 14 % of the rape area in Upper Austria.

## RESULTS

1. Average yield, seed varieties, data of seed seedrate

The average yield of questionnaires amounts to 2895 kg/ha and is 400 kg higher than the average yield of all Upper Austria. This shows that mostly better farmers take part in such actions.

The following varieties were cultivated: Honk 73 %, Lady 10 %, Lirajet 8 %, Idol 3 %, others 4 %. No significant differences could be stated. Significant bad consequences had too late tilling (at the middle of September) and seed rates of more than 5 kg/ha. Best results brought tilling in the last week of August at a seed rate of 2 - 3 kg/ha.

## 2. Plant protection

The results of the questionnaires showed, that actions of plant protection: herb control, rape stem weevil control, rape blossom beetle control, application of fungicides brought an additional yield of 300 - 465 kg/ha. Of great importance for the effect of these controls was the correct timing. In the graphics 1, 2 You can see dates of actions compared with average yield. Best results were achieved at the date fixed by the warnings of the plant protection adviser.

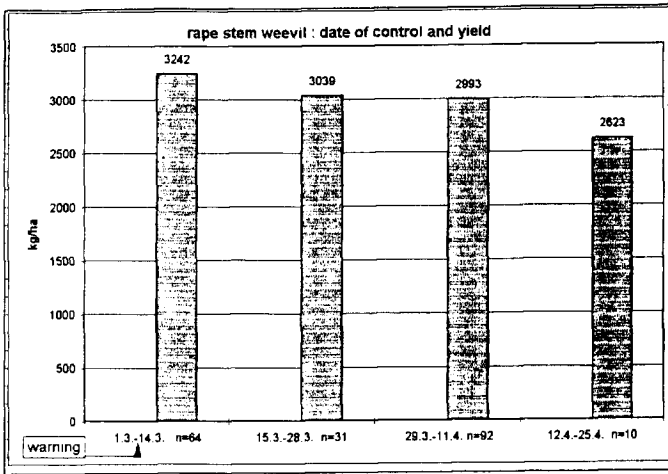
## 3. Gross margin (tab. 1)

The end group has high costs because these farmers applied high amounts of farm manure and mineral fertilizer as well. With the questionnaires one can find out the causes of bad yields in this group. They are too late tilling in autumn, too much fertilizer or manure in autumn, too late control of stem rape weevil and late application of fungicides (if there was any). So all these actions brought about more costs than profit. Under EU conditions, these 1995 gross margins will be significantly lower: middle group = 5.055,-, top group: 7.414,-, end group: 1.797,- (calculated with set aside requirement and a price of 2,75/kg rape). To get positive economical results in 1995 it is of importance to avoid the mistakes of the end group and to apply fungicides only under best conditions.

Tab. 1 gross margin evaluation: 1994

	50 % middle group	25 % top group	25 % end group
yield	2909	3345	2390
market value	13440	15454	11045
equalisation payment	8000	8000	8000
gross output	21449	23545	18965
costs of seed	575	549	589
costs of plant protection	1948	1933	2134
value of farm manure	2028	606	4230
costs of mineral fertilizer	2514	2497	2521
variable costs of machines, treshing, drying, hail insurance	3747	3603	3974
total variable costs	10817	9052	13453
gross margin	10622	14401	5707

GRAPHIC 1



GRAPHIC 2

