

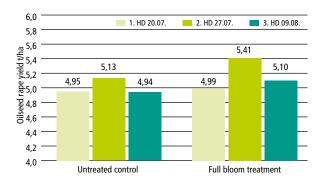
Half a decade ago, the slogan was: The oilseed rape should celebrate its birthday! A year should pass between sowing and harvesting. These and other statements are no longer entirely true today. What has changed in the battle for the best harvest dates between oilseed rape and wheat?

In the past, farmers had to be slowed down so that they didn't mow down the green oilseed rape well before its first birthday. Stems and pods were often not yet well ripened. Today, the restrictions on seed dressing and crop protection lead to a lack of health in the crops, which, in combination with the climate changes, results in faster ripening overall.

### The oilseed rape needs 330 days

And yet modern varieties need a certain amount of standing time in order to utilise their genetic yield potential for grain and oil. Ac

FIG. 1: OILSEED RAPE YIELD AT THREE HARVEST DATES IN 2023



cording to the practitioners, the oilseed rape should be kept vital for longer than 330 days. Today, this ripening period is no longer easy to achieve due to health and weather conditions. The abiotic and biotic factors (such as weather conditions, the consequences of political decisions such as the regulation of the use of pesticides and the increased occurrence of insects/diseases) have changed, and the vitalising greening effect is no longer quite as effective. The following plant cultivation measures offer potential for optimising oilseed rape cultivation, which can lead to a longer ripening period and thus ultimately to higher yields.

#### Wait for the harvest date

Even if the oilseed rape ripens faster due to diseased stems, the first harvest date is not always the right one. This applies in particular to intensive crop management. A trial on flower treatment in oilseed rape (Feiffer 2023) shows that the harvest date one week later resulted in a yield increase of 4 to 8 % (Fig. 1).

### Wheat as number 1

One rule remains unchanged: Wheat has priority. Whenever wheat can be threshed, it should be preferred to oilseed rape in order to maintain the quality of the wheat. The new oilseed rape varieties are relatively stable and resistant to failure, as has been proven in recent decades. Almost every farmer has been forced to interrupt his oilseed rape threshing for some time and then realised that it was to the

oilseed rape's advantage. Fig. 1 shows that the yield on the third harvest date, more than 14 days after the first, drops again, but is still the same or slightly higher than on the first harvest date. This means that you tend to do less wrong by waiting than by threshing too early.

## Oilseed rape is flexible

Oilseed rape is suitable as a jump crop because it can be threshed flexibly. Modern cutterbars with ever shorter changeover times also make it technically possible to switch quickly between cereals and oilseed rape. Thanks to the optimised threshing machines, it is even possible to switch quickly within a day. Conversion and adjustments from oilseed rape to wheat and the other way round can now be realised in less than half an hour. This means that threshing can begin in the morning in oilseed rape, which dries faster, and can be carried out in wheat from midday. At night, when the dew arrives, it moves more quickly into the wheat straw, so that the remoistening of the grain, threshing quality and chop quality noticeably decrease, whereas no problems occur in the oilseed rape and threshing can continue.

### Variety selection as weather insurance

You can no longer rely on the good azores high in the harvest season. Nowadays, a balanced selection of varieties with staggered ripening times is good insurance against periods of bad weather. This is becoming increasingly important in times of climate change. The weather has also become more small-scale, so that it sometimes rains in one part of the farm while it is dry in another part and can be threshed. The good harvest hours can be better utilised by staggering the ripening of the oilseed rape. If, for example, the ripening staggering only results in two additional harvest days due to early varieties, this still means more than 40 to 80 hectares (8 threshing hours/day and 2.5-5 ha/h). This equalises the harvest peak, increases machine utilisation and ensures the quality of the cereals.

## Concrete pods

In the past, the upper pods burst open first, while the lower ones were still rubbery and tough. Now, in dry, hot weather, the upper pods often become very firm, as if baked and hard as concrete - concrete pods. They do not burst open as quickly. At the same time, the lower pods have undergone a kind of emergency ripening due to the heat and drought as well as the diseased stems, so that they open and fall out more easily when rubbed together in the crop. This is why the drop- out control must not only be carried out in the upper

Green stems and rubber pods are less common today due to disease.





Due to diseased stems and in combination with heat and drought, the pods in the lower area are not ripe and burst open sooner than the upper

pod level, but also in the lower area. The rule of thumb is: 2 burst pods per plant is about 1 % loss.

# Difficult threshing and cleaning work

In recent hot years, many farmers have complained about adjustment problems with the threshing unit and cleaning. The hard concrete pods require a higher intensity for the drum or rotor and concave. In mature, dry crops, this in turn leads to significantly more short straw on the sieves. The grains, which become smaller in dry conditions, are then difficult to separate from the crumbled straw and losses increase. Despite small grains, it is more helpful to increase the blower pressure and set the sieves further apart. If you consistently cut at the height of the husk bundle, the threshing unit and cleaning system work much more efficiently with less bulky stalk material.

#### Conclusion

Oilseed rape needs 330 days or more to realise its full yield potential at harvest. This ripening period varies due to variety genetics, health aspects and weather conditions; in addition, crop management measures can carry it vital beyond this threshold.

At harvest, oilseed rape is a good "jumper crop". It gives wheat a head start in terms of harvest dates, it survives harvest delays well and, thanks to short changeover times for the cutterbar, it is possible to switch between oilseed rape and cereals within a day. The failure situation can be reversed. High temperatures lead to firm concrete pods in the upper pod packet and, due to disease, to immature pods in the lower area, which fail more quickly. Despite dry, mature crops, threshing is often more difficult. The concrete pods are more difficult to thresh out and require a sharper threshing action, which prevents cleaning with a lot of short straw.

A pronounced Azores high can help to ensure a good harvest campaign, but this is not always the case, and bad weather phases with fewer threshing days must also be taken into account. It therefore makes sense to consider the choice of variety across all crops before sowing and to adapt this staggering to the farm's threshing capacity in order to always be able to harvest the best possible quality.

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