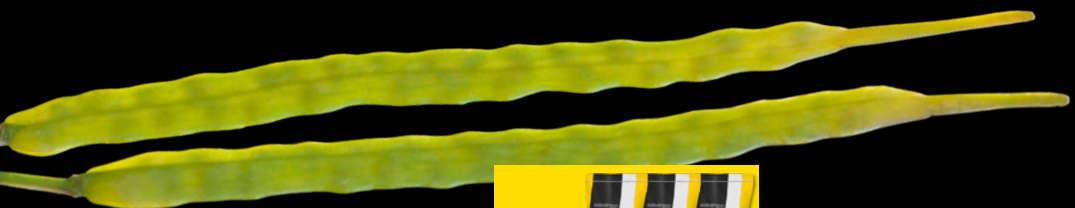


CLEARFIELD® – key management tool in oilseed rape.


The base for successful Clearfield® WOSR production includes different steps from deciding for Clearfield® technology till controlling Clearfield® volunteers in the whole crop rotation:



CLEARFIELD® – successful with RAPOOL



9. In the following crop and through the rotation



For chemical control of Clearfield® volunteers, do not rely on Group B (ALS-inhibitor) herbicides alone.

1. Before sowing



Choose Clearfield® variety.
Check and ensure access to the herbicide.
Check / review best practice.

2. At sowing




Record variety name under field records (e.g. Farm Management Software).
Clean out the drill, before adding Clearfield® seed.
Plan 100 % Clearfield® seed (do not mix with non-Clearfield® seed).

3. At crop emergence




Check weed development.

4. At spraying




Ensure to treat only Clearfield® branded seed.
Target weeds at optimum growth stage.
Read and follow the Cleranda product label.

5. Following spraying



Thoroughly wash out the sprayer, before treating other crops.
Do not spray washings onto non-Clearfield® oilseed rape.

6. During winter and spring development




Check and monitor herbicide performance.

8. Post-harvest

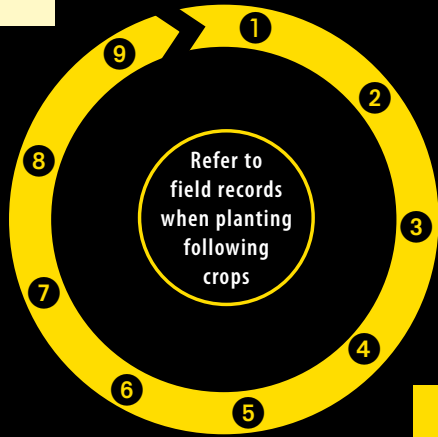


Manage volunteer emergence through combination of cultural and chemical means.

7. At harvest



Actively manage seed losses from the combine.



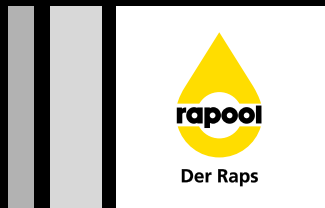
Clearfield® is a registered trademark of BASF company

WE KNOW RAPESEED

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WE KNOW RAPESEED



RAPOOL CLEARFIELD® Hybrids – best genetic for best yield



This requires a flexible production management, especially to allow a broad application window for herbicides to safeguard an undisturbed early crop development before winter. The Clearfield® Production System offers an attractive combination of herbicide tolerant seeds with broad-spectrum Clearfield® herbicide products, which results in a more manageable, reliable crop development and excellent weed control.

Our new genetic in the Clearfield® segment offers the comfort of a broad-spectrum of Clearfield® herbicide products without missing any yield potential in comparison with conventional hybrids. Clearfield® herbicide products can be a useful tool to solve serious weed issues on fields. In addition, we can offer you the unique combination of Clearfield® and TuYV resistance included in our new Clearfield® variety BEATRIX CL.

RAPOOL stands for competence, a high-performance breeding network, customer-oriented service, high qua-

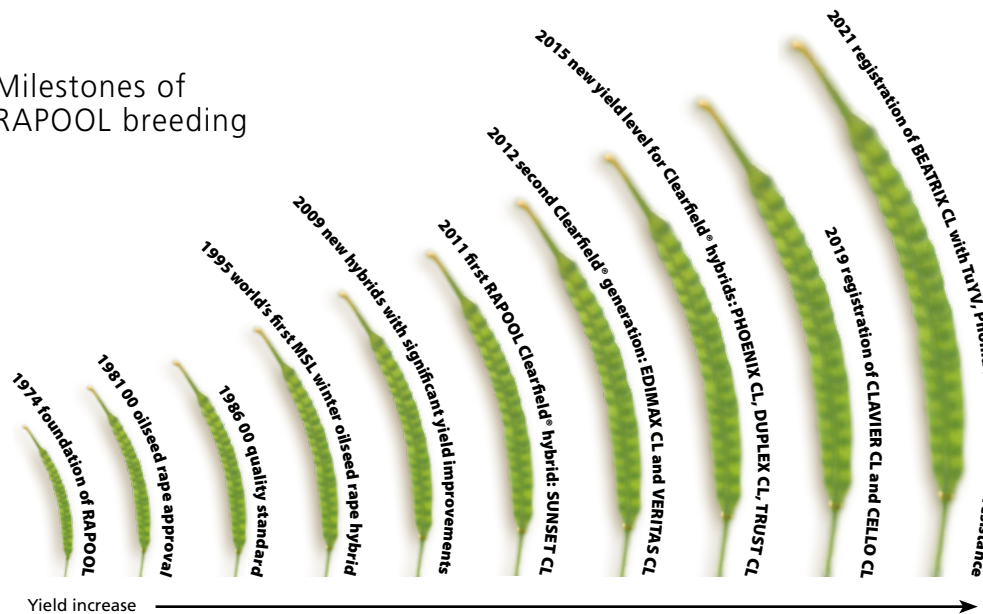
lity from breeding to commodity grain and, of course, highest yields. Behind all of this stands our breeding team with a great deal of commitment and motivation. This allowed us to introduce new Clearfield® hybrids gradually until we reached a new yield standard. With CLAVIER CL we did one further step to very healthy and robust Clearfield® varieties, due to its phoma resistance RLMS and very good winter hardiness.

The now upcoming generation of BEATRIX CL promises a new yield standard of Clearfield® varieties for the European market. Including a great vigour, healthiness (RLM7 and TuYV resistance), pod shatter resistance and high yield potential to close the yield gap to conventional hybrids.

Rapeseed will stay an important source of your profit in future; this requires the best quality from the beginning. You can count on us, because:

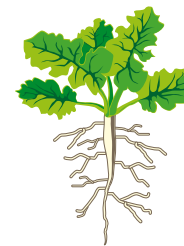
“We know rapeseed.”

Milestones of RAPOOL breeding



Clearfield® technology was developed by traditional breeding.

1 Start with OSR plant from parent line.



Original enzyme

2 Selecting plants that contain an imazamox tolerant enzyme.



Changed enzyme, tolerant against Imi herbicides

3 Backcross the tolerant plant with a high quality breeding line.



4 Produce Clearfield® hybrid OSR.



RAPOOL CLEARFIELD® – Hybrids with personality

CLAVIER CL

- Fast youth development in autumn
- Very good winter hardiness
- Excellent healthiness due to RLMS phoma resistance

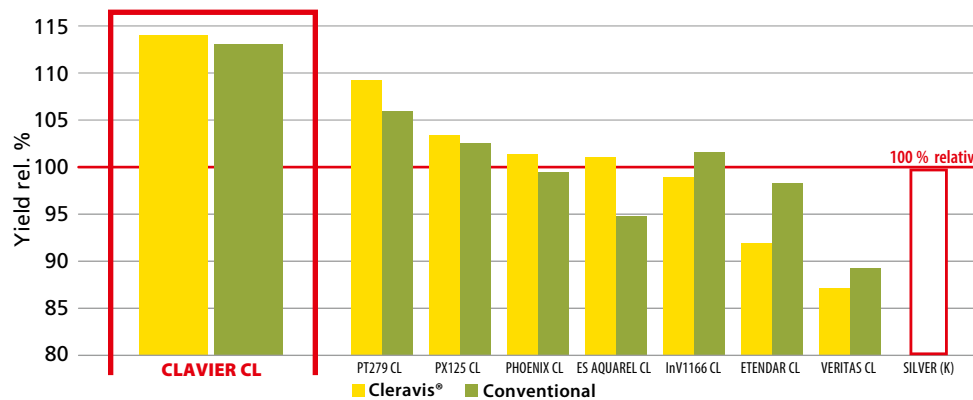
CLAVIER CL	
features production	little/early medium high/late
seed yield	● ● ● ● ● ○
oil content	● ● ● ● ● ○
oil yield	● ● ● ● ● ○
min tillage suitable	● ● ● ● ● ○
sowing date	○ ● ● ● ● ○
light soils	● ● ● ● ● ○
medium soils	● ● ● ● ● ●
heavy soils	● ● ● ● ● ○
vigour	● ● ● ● ● ○
winter hardiness	● ● ● ● ● ●
ability to regenerate	● ● ● ● ● ○
drought stress tolerance	● ● ● ● ● ○
plant health	● ● ● ● ● ○
lodging resistance	● ● ● ● ● ●
maturity	○ ● ● ● ● ○
harvestability	● ● ● ● ● ●

BEATRIX CL

- Very good winter hardiness and robustness, quick start after winter
- Very good healthiness, due to RLM7 phoma resistance and TuYV resistance
- Safe yield in during harvest, due to pod shatter resistance

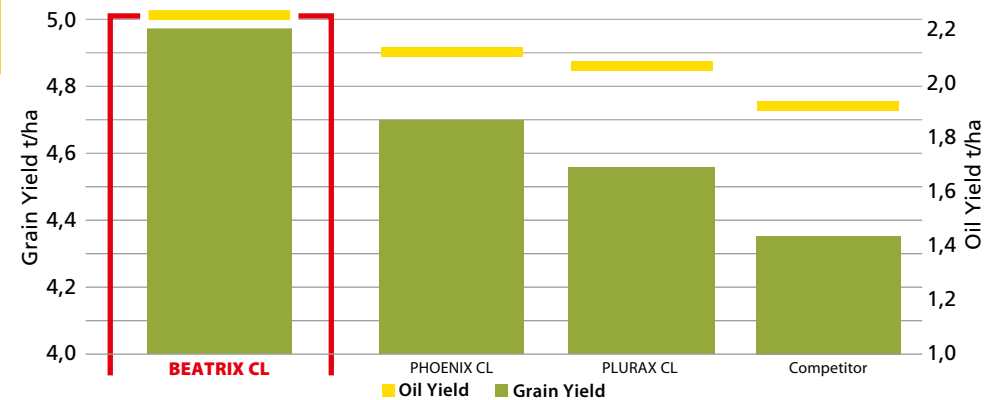
BEATRIX CL	
features production	little/early medium high/late
seed yield	● ● ● ● ● ●
oil content	● ● ● ● ● ○
oil yield	● ● ● ● ● ○
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light soils	○ ● ● ● ● ●
medium soils	○ ● ● ● ● ●
heavy soils	○ ● ● ● ● ●
vigour	● ● ● ● ● ●
winter hardiness	● ● ● ● ● ○
ability to regenerate	● ● ● ● ● ●
drought stress tolerance	● ● ● ● ● ○
plant health	● ● ● ● ● ●
lodging resistance	● ● ● ● ● ●
maturity	○ ○ ● ● ○ ○
harvestability	● ● ● ● ● ○

CLAVIER CL – Leading CL variety with broad flexibility in crop management



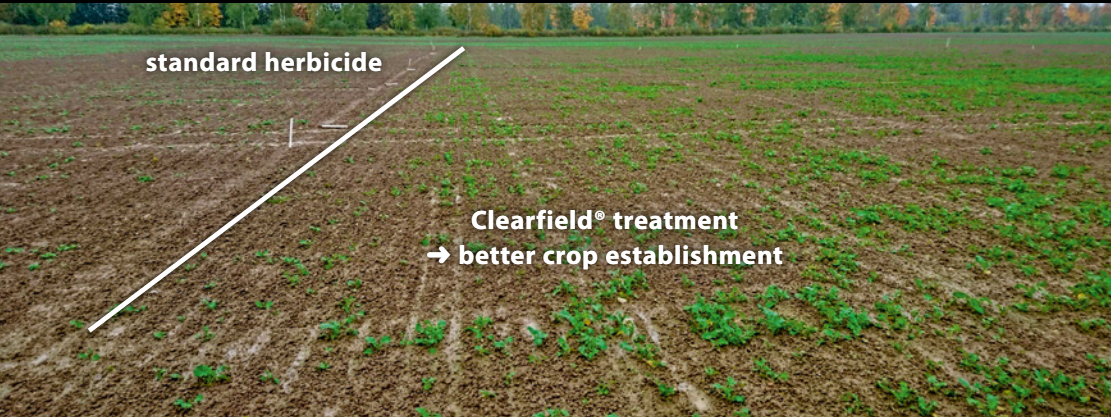
Source: SPZO 2019, Clearfield® trials 2018/2019, n = 8 Clearfield® varieties, Check = Silver, n = 2 locations (Krásné Údolí and Kujavy), average yield (100 %) = 4,05 t/ha

BEATRIX CL – highest grain and oil yield of Clearfield® varieties of RAPOOL trial 2019



Source: Internal RAPOOL Clearfield® Trial with Clearfield® treatment, 2019

Advantages of the CLEARFIELD® Production System



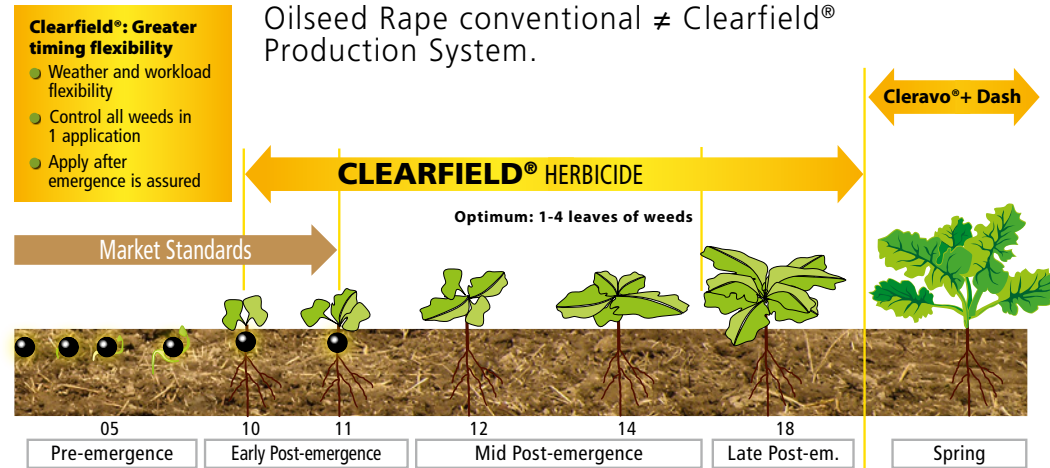
Better crop and early crop development in difficult autumn conditions with high rainfall due to later application of herbicides and stress minimization.

Source: DSV, Latvia October 2017

- Real post emergence application broad spectrum weed control.
- Soil and leaf acting: weed control independent from soil conditions.
- Excellent performance in low/mintill situations.

- CL-varieties are tolerant to SU herbicide residues in the soil from the previous crop (very often a problem after dry conditions in summer) = better emergence and uniform juvenile development.
- Flexible spraying window – apply after emergence.
- Difficult cruciferous weeds and volunteer oilseed rape can be controlled = increased varietal purity.
- Lower risk of contamination with erucic acid
- Combination of Clearfield® and TuYV, phoma and pod shatter resistance is possible

For questions about weed control, contact the local BASF representation.



Herbicide application window:

- > 1 week
- Max 10 days
- 2 – 3 weeks Clearfield® provides extended application flexibility to reduce peak workload pressure and allows the growers to choose the spraying conditions.

Clearfield® for control of all key weeds.

Cruciferous weeds					
Broad spectrum of broad leaf weeds					
Volunteers and grasses					
Hard to control weeds (Poppy, Chamomilla, Grainsbill)					

Best control achieved at early growth stage

Clearfield® provides broad spectrum control of all major weeds in one application.