Nitrogen-efficient varieties are helping change the game in oilseed rape

Research backs up what farmers who grow RAPOOL-RING oilseed rape already know - these varieties are more nitrogen efficient and can help save farmers money on fertiliser.

When University of Giessen plant breeding researcher Andreas Stahl looked at modern varieties of rapeseed (among them varieties created by RAPOOL-RING) and compared them to older varieties of oilseed rape, he discovered something important: modern varieties are significantly more efficient at using nitrogen. Nitrogen is among the most important plant nutrients farmers apply to achieve a high yield and high productivity, notes Stahl. On the other hand, unused nitrogen can escape from the agricultural production system as it is not always completely taken up by the plant, and nitrogen residues can cause severe damage to ecosystems.

"That means we need higher nitrogen use efficiency in oilseed rape varieties," says Stahl.

Modern genetics allow the plants to better take up the needed nutrients, and Stahl believes these improvements will only gather speed in the future as breeders become even better at doing their work.

"modern genetics will contribute to a more environmentally friendly production of crops in general, but especially in oilseed rape, where growers arechallenged to use less fertiliser due to new regulations and an overall concern for the environment," adds Stahl.



Winning Combination

Higher nitrogen use efficiency offers growers the potential to cut their fertiliser costs, saving money and helping the environment at the same time - a winning combination in the World of farming, especially at a time when farmers are having to decrease fertiliser use, says Jeanne Geissler, product manager international for RAPOOL-RING.

"Growers who use these varieties tell us the plants are healthier and are better able to withstand weather and climate challenges, even



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when fertiliser use is reduced," says Geissler.

RAPOOL-RING'S oilseed rape varieties provide the whole package in a modern hybrid. The biggest step RAPOOL recently made toward nitrogen efficiency was the introduction of the new standard trait turnip yellows virus (TuYV) resistance. The resistance to TuYV has a positive influence on plant vigour and root development. TuYV resistance is now standard in RAPOOL varieties, as are tolerancesto other diseases like light leaf spot, verticillium and sclerotinia. Resistance to pod shatter and winter hardiness are built inas well.

TEMPTATION, one of the standout hybrids in the RAPOOL portfolio and the most popular one in eastern Europe, is an example.

"Newcomers like JUREK, MANHATTEN and JANOSH are more efficient with nitrogen because the are better able to withstand environmental stress, much of it due climate change. The plants do not expend excess energy coping with those environmental stresses, and are able to put their energy towards yield," Geissler says.

As oilseed rape farmers look for new tools to help them cope with climate change and reduce their fertiliser use, modern breeders like those at RAPOOL-RING are showing through extensive researche that their groundbreaking new varieties are the real to help growers deal with the consequences of climate change.



