

Firm rolls out new crop of tyres to boost productivity in farming sector

The growing world population is presenting enormous challenges for the agricultural industry.



The UN estimates that by 2030 enough food will have to be produced to meet the needs of about 8.5-billion people. At the same time, the amount of space available for agricultural land is dwindling, which means more harvests have to be gathered in ever shorter times.

The top priority for farmers, therefore, is to boost operational efficiency while ensuring the sustainable use of resources.

Tyres play an important role

As the physical link between soil and agricultural machinery, tyres play an important role in increasing the efficiency of agricultural vehicles.

Tyre pressure can play a crucial role in vehicle safety as well as vehicle efficiency. According to tyre manufacturer Continental, this is as true in the agricultural sector as it is in commercial transport and passenger vehicles - but not necessarily in the way you might think.

The higher the pressure, the smaller the tyre's contact patch with the ground. This leads to high slip - that is, more of a loss in terms of distance covered - which, in turn, makes it harder for the vehicle to move forward in the field.

In addition to the lower traction, this increases fuel consumption, tyre wear and pressure on the ground.

Reduced economic efficiency and agricultural performance are the results.

Right degree of slip combined with good tractive power transmission

The right degree of slip combined with good tractive power transmission can make an agricultural vehicle

more efficient and able to operate over long periods of time. Correct lug height, good self-cleaning properties of the tyre, a large tyre diameter and a high air volume for low tyre pressures are essential for ensuring optimum tractive power transmission.

The correct distribution of the ballast is also important as reserves for additional weights.

It is not an area many will have considered, but Continental says it has responded to these challenges with new tyre portfolio for the agricultural sector.

"When developing the new tyres, we were unwavering in our quest to improve the quality and output of tractors on the field in terms of both vehicle performance and the utilisation of resources," explains Thorst Bublitz, product line manager for agricultural tyres at Continental Commercial Specialty Tires.

Boosting long-term productivity

"Optimum tractive power transmission out on the field, good traction for faster forward travel, minimal slip of 10%-15% and the right tyre pressure for protecting the ground help to boost long-term productivity."

The company says it has introduced new innovations such as its N.flex technology and a special bead design with a single wire core. Both elements are engineered to make the new tyres more robust, reducing the risk of damage and the associated repair and downtime.

The flexible nylon material used for the carcass is also more stretchable than other materials, says Continental, and can mould itself around the lumps and bumps on the ground, which ensures improved damping and greater ride comfort. The dimensional stability of the nylon technology also prevents temporary deformation of the tyre, known as a flat spot.

The new tractor tyre is also slightly wider and, thanks to the bigger contact patch between the tyre and ground, can run with much lower air pressure even when bearing heavy loads. Together with the rounded tread lug edges, this is said to result in less pressure on the ground and less ground compaction without a compromise in traction.

The vehicle's performance is therefore improved and the efficiency of the fuel increased.

At the same time, Continental says the soil and crops are protected over the long term - an important factor in helping farmers achieve higher yields.

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