

# 8 Keys to Quality in Ag Tires

By Loren Block  
Marketing Manager, Dawson Tire & Wheel

Tire quality has improved greatly in recent years, thanks to multiple breakthroughs in tire technology. Then again, they've had to keep pace with the rapidly changing trends in farming. Machinery is getting bigger and heavier. Farmers are putting more road miles on their equipment to access all of their fields. Even modern corn hybrids have tougher stalks, which can cause expensive damage to tires. As a result, today's tires have to be stronger than ever to handle the demanding workload, while keeping field compaction as minimal as possible.

Of course, this raises the question, "How do I identify a quality tire?" Unfortunately, it's not an easy answer. That's because, whether you're looking for replacement tires for your sprayer, tractor, combine or any other piece of farm machinery, you'll never find the perfect tire. There may be an ideal tire for a specific application, but that same one may not work well at all in a different application. So, to help you sort through your next tire purchase, here are the top eight factors that determine tire quality.

## 1. Ingredients

Because there isn't a single rubber compound that excels in all applications, tire manufacturers use a combination of "ingredients" to enhance certain characteristics of a tire. In fact, most farm tires have anywhere between 12 and 30 different ingredients, with each one serving a unique purpose. Generally speaking, a tire that has more ingredients will typically perform better and last longer than one with fewer ingredients.

## 2. Rubber

According to conventional wisdom, many people want a heavy tire with lots of rubber, believing that more rubber must equal a better tire. However, this is not necessarily the case. As long as a tire is well built with high quality compounds, having lighter weight may actually be more beneficial. A lighter tire may lower rolling resistance, increase fuel efficiency, and offer better handling and performance than a heavier tire of equal strength.

### **3. Nylon**

Not only does a good tire use quality rubber, but it also contains high-grade nylon. Low-grade nylon can cause increased flat-spotting, especially on pieces of equipment that are in storage for long periods of time. When the machinery comes out of storage, the flat spot may work itself out, but in the worst cases, the flat spot may be more permanent.

### **4. Tread**

More traction means more torque. To transfer power to the ground as efficiently as possible, the top tire manufacturers use state-of-the-art rubber compounds and innovative tread designs that maximize performance in the field. Additionally, a good tread will also offer better self-cleaning than lower quality designs.

### **5. Bead**

A tire's bead is perhaps the last thing a farmer wants to have fail on his tires. As a result, a high-quality tire has a strong bead with abrasion and fatigue resistance. It should also have optimal compression to reduce the amount of tire slippage on the rim. You can often tell that a tire has good compression if it is difficult to install on the rim.

### **6. Manufacturing Process**

Tire quality is dependent on the manufacturing process itself. Premier tire manufacturers keep the production process as hands-off as possible, since manual labor is much less precise at mixing chemicals and applying components than the latest high-tech robotic instruments. For example, robots are better at accurately aligning tire liners, helping ensure dependability and high performance. Therefore, unless automated processes are used to produce tires, the end result could range from defects in the rubber to tires that are not perfectly round.

### **7. Warranty**

Aside from looking at the various speed and load ratings stamped on the sidewall, it can be difficult to tell how good a tire is just by looking at it. After all, the quality of rubber compounds, nylon textiles and other components isn't visible from the surface. The only way to know is to speak with a knowledgeable salesman or manufacturer representative.

Without going to that length, however, another way to gauge overall tire quality is to look at the warranty. Leading manufacturers like Trelleborg, for instance, may offer an 8-year warranty on tractor tires with a 2-year warranty on stubble damage. Trelleborg wouldn't offer such a long warranty program unless the company had complete confidence in the quality of its products.

## **8. Maintenance**

The last factor in tire quality is entirely out of the hands of manufacturers. Farm equipment operators need to maintain their tires, especially by inflating them properly (keeping appropriate pressures for in the field and on the road) and by operating equipment within the limits of the tires. As long as these maintenance procedures are kept up, tires will almost always outlast their warranty periods.

In the end, all the factors of tire quality boil down to two things: the manufacturer and the operator. Premier manufacturers of ag tires devote many resources to research and development to create innovative new products that meet the demands of modern agriculture. But even the best tire from a well-respected supplier may not hold up if the operator fails to maintain the tire properly and run it within its limitations.