AgriBrink

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Decrease Soil Compaction with Innovative AAID Control Syster

Soil compaction is an ever-increasing problem for the agricultural industry. Not only does it lower crop yield, it also contributes to soil erosion and loss of nutrients into waterways. These and other concerns motivated a Canadian farmer to find a solution. Using the simple concept that weight spread over a greater surface area equals less pressure on the soil, Jake Kraayenbrink decided to lower the pressure in his manure tank tires. The lower tire pressure worked well in the field, but caused a problem for road travel. So Jake began to look for a way to both inflate and deflate the tires on his equipment.

Jake became involved with a project that was put together with the intent of finding an inflation/deflation system. A system for trucks was purchased through the project, but was found to be inadequate for agricultural performance. When the project was completed, Jake continued his search for a way to inflate and deflate tires. Shortly after, he put together a team including a mechanic and a local engineer to help develop a totally new system. Being a practical farmer, Jake knew it needed to be fast and easy to operate. What began as a pursuit of information soon became a new company called **AgriBrink**.



Jake's team designed the **Automatic Air Inflation Deflation (AAID)** system. This system deflates tires in seconds and allows the operator to change the tire pressure with the flip of a switch in the cab. The control box is easy to use and has a data logger measuring the tire pressure and speed. It also has a built-in alarm that reminds the driver to increase the tire pressure as the vehicle speed increases. The AgriBrink system offers reduced compaction, increased tire life, lower fuel consumption, better traction, and higher crop yields. The system has been installed on a variety of equipment including tractors, balers, sprayers, grain buggies, and manure tanks. AgriBrink has also designed an ISOBUS (ISO11783) standard interface to facilitate communication with Virtual Terminals of various tractors globally. This was certified by the German-based Agriculture Electronics Industry Federation (AEF) at the Nebraska Tractor Test Laboratory.

In Switzerland, the University of Bern is using the AAID system for research in soil compaction related to tire pressure. In September of 2017, a Compaction Action Day was held at a farm in Ontario, Canada, to educate farmers on the effects of compaction. Various pieces of equipment were driven over sensors in the ground to see how their weight and tire pressure would affect the soil. One of the pieces of equipment was a 14000-gallon Nuhn manure tank. It was tested twice to show the difference that tire pressure can make. For the first test, the tires were set to 40 psi. The results showed a high level of compaction. For the second test, the tires were deflated to 10 psi. This time, the compaction to the soil was well within the acceptable range. P R E M I E R ' S A W A R D F O R AGRI-FOOD INNOVATION EXCELLENCE

Award Recipient

AgriBrink earned a Premier's Award for Agri-Food Innovation Excellence in 2011. Since then, more and more Canadian farmers are becoming aware of the effects of soil compaction and are finding AgriBrink a viable option to help reduce it. The AgriBrink system gives farmers a solution to lessen compaction while utilizing their own equipment. It is 100% designed and assembled in Canada using high quality parts.

For more information, contact AgriBrink at 1-519-840-0919 or visit their website at *www.agribrink.com*.





