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MEDIA RELEASE

New Genetics to Australia for Summer Forages Lifts National Productivity Potential

The introduction of a new genetic stream in breeding lines for forage sorghums has the potential to increase productivity for grazing livestock producers across all summer crop growing areas of Australia, according to HSR Seeds Research Director Damien Courtier. Herd productivity in grazing animals basically comes down to two things according to Mr. Courtier – Genotype, and the animal's ability to express this potential as its Phenotype. The genotype of the animal is its genetic potential inherent in its physical make up. This basically means its productivity potential as determined by its ability to convert available feed to meat, milk, wool, etc, and all the basic structural components that make it an inherently sound animal that can meet the environmental challenges it may encounter such as stress, drought, cold and heat. The phenotype of the animal is how that inherent genetic potential is actually expressed in the final result. This means that no matter how good the breeding of any animal may be; it will still produce a substandard performance if it is severely stressed by its environment, such as a lack of decent feed. On the other side of the equation an animal that may not have such a good breeding pedigree may still do extremely well because it lives in a soft environment of comfortable weather, and excellent feed availability. All good livestock producers are aware of this in simple terms it is a combination of your animal's genetic makeup, and what goes down the animal's neck that will determine your end result, and therefore your profitability. Where there is still some confusion though, is in that many livestock producers grazing summer forages still view forage sorghums as being very similar if not all the same. To a Forage breeder this is the same as someone off a city street believing that a Holstein is the same as a Brahman, or a Charolais –they are all cattle. Cattle producers are extremely aware of the major differences between cattle breeds, but not many would appreciate the significant differences between forage sorghums. One of the greatest advancements in forage sorghum breeding has been the introduction of Brown Mid Rib (BMR) genetics, which has been shown to lift animal productivity potential by up to 20% in cases. This has been a massive breakthrough according to Mr. Courtier. Historically forage sorghums have been managed quite casually by many producers they have been seen as vigorously growing plants that produce a lot of feed quickly, but not of the highest quality, and have been treated accordingly. The introductions of Ultra Late flowering and sweet pedigrees have made the management easier, but still there has been a huge potential untouched in most forage sorghum crops. This new BMR technology essentially makes the plant material eaten by grazing animals more digestible. It does this by reducing the lignin content of the plant. Lignin is like the cement which binds the plant material together. Changing the lignin structure of the plant to reduce the amount of nondigestible material means that for each mouthful the animal eats, more is used to produce milk, meat or wool. Some tests have shown increases in Metabolisable Energy (M.E.) of BMR forages to be over 40% greater than conventional forage sorghums (Dr. John D. Axtell, Dept. Agronomy, Purdue University. 1998). This means more production using the same resources of water, fertilizer and soil and less waste. It has also been shown (Thomas Kilcer, University of Nebraska. 1999.) that BMR forage silage fed to dairy cattle will produce the same milk production with similar fat and protein levels as corn silage but using less water, fertilizer and herbicides. Also the crude protein levels of BMR silage were higher than corn silage.



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According to Mr. Courtier, HSR Seeds are at the leading edge of adopting this exciting new technology, and introducing the trait into their total range of forage sorghums here in Australia through their “BMR Alternative” breeding programme. HSR Seeds are using the superior 12 gene BMR breeding, and have already released three advanced BMR hybrids, BMR Revolution for intensive, high production, BMR Choice, a silage specialist, and BMR Supreme the only Ultra Late flowering, sweet BMR forage on the market. “HSR Seeds have taken the position of the BMR specialists in the Australian forage market, and will continue to bring forward industry leading genetics to the Australian livestock producer chasing best return on investment for summer forage plantings”. HSR Seeds now has at least one “BMR Alternative” forage sorghum to replace any current variety now being grown in Australia, said Mr. Courtier. This applies to hay, pit silage, plastic wrap silage, greenchop, intensive grazing, range grazing or any other current use. Our BMR 12 gene varieties are suitable for all classes of livestockdairy, beef, sheep, lambs, wool production, horses, deer and any other ruminants. “Our BMR Alternative” has been in progress for a number of years now, and is really starting to change the face of the forage sorghum industry right across all summer cropping areas in Ausrtralia”