

High-clearance pivots like the Sugargator® help growers achieve uniform irrigation in tall sugarcane, protecting yields while reducing water use, labor, and field stress.

Overcoming the Height Challenge in Sugarcane Irrigation

Sugarcane is one of the tallest commercial crops in the world, with stalks that often stretch 3 to 4 meters high before harvest. This remarkable growth makes sugarcane both a vital crop and a demanding one. For growers, it poses an irrigation challenge. How do you deliver water evenly when the crop itself stands taller than most mechanized systems can handle?

Standard center pivots and lateral move systems often lack the clearance to irrigate mature cane effectively. The result is uneven water distribution, plant damage, and wasted resources. To overcome these limitations, Reinke engineered the Sugargator® with added tower height. This design gives growers the clearance they need to achieve uniform irrigation throughout the entire growth cycle.

The Demands of a Thirsty Crop

Sugarcane's productivity comes with a cost, as it is one of the most water-demanding crops in modern agriculture. Its rapid biomass accumulation requires heavy and consistent irrigation over a long growing season. Without a reliable system in place, even minor gaps in coverage can reduce stand quality and harvest yields.

As cane grows taller, its dense canopy intercepts rainfall and sprinkler irrigation, reducing the amount of water that reaches the soil. While the shading effect can help with soil moisture retention in certain climates, it also complicates irrigation uniformity. Systems with insufficient clearance often struggle to push water past the leaves and stalks down to the root zone where it matters most.

Adding to the difficulty is the sheer biomass of mature cane, which creates muddy conditions and contributes to soil compaction when fields are flooded or heavily trafficked. These conditions are made worse under traditional surface irrigation systems, where labor and water demands are already high.

Uneven irrigation in tall cane can also leave stressed patches in the field. These weakened zones are more vulnerable to pests and diseases, putting even more pressure on yields.

To address these challenges, growers increasingly look to mechanized systems with the clearance to irrigate effectively throughout the crop's growth stages. High-clearance pivots provide a consistent and reliable solution that balances crop height, water use, and field management.

Why High-Clearance Irrigation Matters

As sugarcane grows, its towering stalks and dense canopy create barriers that many traditional irrigation methods cannot overcome. Surface irrigation wastes large volumes of water and often leaves parts of the field too wet while others remain dry. Standard pivots may perform well early in the season but struggle to keep up as cane approaches full height, reducing uniformity and efficiency.

High-clearance pivots address these issues by lifting the irrigation line above the canopy. This elevation ensures water reaches the soil instead of being trapped on leaves or stalks, and it allows irrigation to continue effectively throughout the crop's entire growth cycle. By minimizing soil compaction and maintaining consistent coverage, these systems help growers manage both water use and labor demands more efficiently.

For growers managing hundreds of acres, the ability to irrigate tall crops without interruption has become a necessity. High-clearance pivots provide a dependable path to balance crop height, field conditions, and water efficiency, ensuring that sugarcane receives the moisture it needs from planting through harvest.





A Practical Solution for Sugarcane Irrigation

The Sugargator® was developed specifically for tall crops like sugarcane. Its elevated tower height clears mature cane fields, allowing irrigation to continue uniformly from planting through harvest without mechanical interference.

Durability is critical in cane production, where long seasons and harsh conditions can test equipment limits. For this reason, the Sugargator® is built with high-strength steel, engineered to withstand the demands of large acreages and tall crops. This ensures long-term performance while minimizing downtime.

High-clearance pivots do more than simply pass over stalks. By elevating the irrigation line, they protect plants from damage, reduce drag, and ensure water penetrates the canopy to reach the soil. Nutrient delivery through fertigation also benefits. Fertilizers move efficiently to the root zone rather than being caught on leaves or evaporating before they reach the soil.

Finally, sugarcane is typically planted on large acreages where uniformity is difficult to maintain with furrow irrigation. The Sugargator® provides even coverage across wide fields, helping growers reduce wasted water, manage labor more efficiently, and achieve consistent stands. With options for center pivot or lateral move configurations, the system adapts to various field layouts while still meeting the clearance demands of tall cane.

The Road Ahead for Sugarcane Irrigation

Sugarcane's height makes uniform irrigation one of the most persistent challenges growers face. Rising water costs and labor shortages only intensify the problem. High-clearance pivots provide a practical path forward by reducing dependence on water-heavy furrow methods, minimizing soil compaction, and ensuring even water delivery from planting through maturity.

By addressing the challenge of height directly, the Sugargator® gives growers a system designed to keep pace with sugarcane's demanding growth. The result is stronger stands, higher yields, and more profitable sugarcane production. For growers managing one of the world's tallest crops, high-clearance mechanized irrigation is no longer optional. It is essential.



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