



Tackling food loss and waste to advance a carbon-zero future for agriculture

The tomato hybrid with double-shelf-life to address India's transport challenge

One-third of food produced is never consumed, which contributes to 8% of global greenhouse gas emissions. Bayer Crop Science is committed to finding innovative solutions to address climate change by reducing in-field and post-harvest loss, as well as improving food security and the livelihoods of farmers.



Tomatoes are the second most widely produced vegetable in the world (FAO). Traditional tomatoes tend to have a relatively short shelf life, typically spoiling within a timeframe of 5-7 days, that can result in food loss during transport.

At Bayer, our plant breeders are working to develop climate smart varieties and have introduced a tomato variety with a demonstrated ability to reduce food loss and contribute to carbon reduction. **Ansal**, grown across more than 13 countries, is a variety with great adaptability to heat stress, firm fruit, and importantly farmers benefit from its 12-14 days shelf life. These traits improve the ability to transport over long distances under ambient temperature conditions. Food loss is reduced both at the farm level and during transportation.

Ansal produces fruit with an attractive red color which consumers love and brings additional value to the growers in terms of overall fruit quality, extended shelf life and plant yield. With its disease resistance package, Ansal tomato can enable the reduction of crop protection products applications in the field.

In a study commissioned by Bayer, Wageningen University analyzed Ansal and concluded that with its double shelf life and thicker cuticles, it can be transported for long distances under ambient conditions. Wageningen University's measurements showed reduction of losses in a typical postharvest chain from about 30% to less than 10% in the Ansal tomato.

A climate impact analysis by the Wageningen University using the [Agro-Chain Greenhouse Gas Emissions \(ACE\) calculator](#) to calculate the product life cycle, revealed that this variety resulted in a >25% reduction of GHG emissions per unit of tomato sold to consumers due to the hybrid's ability to withstand long transport times and arrive safely to their destination in good condition.

We sell Ansal in 16 countries in Africa and Asia Pacific, helping smallholder farmers to achieve higher returns of investment from their fields.



// Egypt	// Nigeria	// Tanzania
// Ghana	// Pakistan	// Thailand
// India	// Philippines	// Uganda
// Ivory Coast	// Senegal	// Vietnam
// Kenya	// South Africa	
// Myanmar	// Sri Lanka	

RESTRICTED