

# Scientists inching closer to disease-free maize varieties

*Cimmyt director says trials on MLN-tolerant seeds in progress across East Africa*

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Scientists are working round the clock to tackle Maize Lethal Necrosis (MLN), the viral disease responsible for an estimated 100 per cent loss in maize yields.

Through ongoing screening of lines and hybrids from seed companies in sub-Saharan Africa, and national research organisations such as the Kenya Agriculture and Livestock Research Organisation (Kalro), scientists are identifying and selecting promising varieties that are tolerant and resistant to MLN.

Some of the identified varieties are already undergoing national performance trials (NPTs) in Kenya, Uganda and Tanzania, meaning that if cleared, farmers will be

able to plant them from 2017.

Director for Global Maize Programme at the International Maize and Wheat Improvement Centre (Cimmyt), Dr PRASANNA BODUPALLI says five MLN-tolerant varieties are being scaled up to reach farmers from this year.

He spoke exclusively to *People Daily*.

**Q.** What specific traits do the varieties have that are attributable to their tolerant strength?

**A.** These pre-commercial hybrids developed by Cimmyt and nominated by partners for NPTs possess high grain yield potential, coupled with MLN tolerance and other adaptive traits including drought tolerance and resistance to foliar diseases.

**Q.** MLN is associated with total yield loss. What hopes do farmers have that these varieties will reverse this situation the moment they are commercialised?

**A.** The extent of grain loss due to MLN depends on the stage of

**MEASURES**

Effective agronomic practices, including timely and synchronised planting of maize at the village level

Identifying and destroying any MLN-infected plants

infection. If severe infection happens at an early vegetative stage, there could be 100 per cent yield loss. If the infection happens at a very late stage (say during grain filling), the loss will not be 100 per cent. The MLN tolerant varieties will certainly provide significant relief to the farming communities. Our on-farm trials in eastern Africa under severe MLN disease pressure done in natural conditions revealed that compared to the MLN-susceptible commercial varieties that may yield not more than two tonnes per hectare, the MLN-tolerant varieties showed at least five to six tonnes under the same conditions.

**Q.** What would be your best advice to farmers in regard to MLN control and the expected release



Director for Global Maize Programme at the International Maize and Wheat Improvement Centre Dr Prasanna Bodupalli. PHOTO: GEORGE KEBASO

of these varieties?

**A.** First, Cimmyt would like the seed companies to actively replace the existing MLN-susceptible maize varieties with the high-yielding tolerant varieties, especially in the MLN endemic areas in Eastern Africa. The job does not just end with the commercial release of such varieties but also in actively demonstrating the benefits of such varieties through on-farm trials and stimulating demand from the farming communities. Second, we need to tackle the MLN challenge on multiple fronts. Growing MLN-tolerant varieties is one of the ways for control. Equally important for the farmers is to avoid monoculture of maize—it is important to diversify the cropping systems, especially with legumes. The maize-legume cropping system will not only help improve the soil fertility but will also break the MLN virus cycle.

## InBrief Wildebeest migration ups hotel bookings

Bed occupancy in Maasai Mara has risen from 45 per cent early last month to about 85 per cent as more tourists troop in to watch the migration of wildebeest from Serengeti in Tanzania that is on its last leg, hoteliers said yesterday.

Around the same time last year, occupancy stood at 35 per cent and the hoteliers say they expect it to reach 90 per cent before the peak season ends in October.

"We are doing better than last year. Before the end of the season, we expect bed occupancy to rise to about 95 per cent," said The Mara Managers Forum secretary Ben Kipeno.

Most of the guests, he said, are Chinese, Indians, Americans, Pakistanis and Australians, adding that there have been low arrival of tourists from UK, blaming it on the fall of the Sterling Pound after the Brexit.

"Most of our clients are from Asia. Bookings to mid October when the wildebeest are expected to troop back to Serengeti after calving is impressive," said Kipeno, adding that improved security in the country has hugely contributed to the steady arrivals.

About 1.8 million wildebeest and 750,000 zebras have crossed into the Mara while about half a million more animals are expected to cross in the next two weeks, according to ecologists.

Lily Waddington, the proprietor of Osero Camp within Siana Conservancy, says the 20-bed capacity exclusive establishment has been fully booked from early last month, adding that most of his guests are Britons.

## PIC SPEAK



Central Bank of Kenya Governor Patrick Njoroge during the launch of the Foreign Investment 2016 questionnaire in Nairobi. PHOTOS: AYUB MUIYURO, HELLEN MUTURI



Bamburi Cement health and safety manager Caroline Muriithi (right) explains to masons how cement is packaged at a recent visit to the plant as part of the firm's on-going programme to train artisans from across the country with the aim of improving construction quality standards.



East African Legislative Assembly Member of Parliament Nancy Abisai, Speaker Daniel Kidega and Society for International Development deputy managing director Arthur Muliro during the launch of the State of East Africa, 2016 report in Nairobi.



Kisumu farmer Joseph Agumba, who won a Sh20 million Betway jackpot recently, inspects his new house currently under construction. Betway offered him professional financial advice to help him invest his winnings sustainably.