

MMSP: Mabang Megakarya Selection Programme

A cocoa breeding initiative to improve the seed gardens of today and develop the clones of tomorrow

The supply of improved planting materials to farmers is a cornerstone of sustainable cocoa production. Many cocoa producing regions in West Africa, including the Ghana cocoa belt, are facing the devastating *Phytophthora megakarya* Black Pod disease, which cannot be controlled economically by fungicides or cultural techniques. MMSP is an advanced, large-scale cocoa breeding programme which is developing high performance planting materials capable of producing high yields of good quality cocoa even under heavy pressure from *Phytophthora megakarya* and other pests and pathogens.

MMSP builds on CRIG's previous breeding work and research, but introduces the large-scale selection methods developed by the Malaysian plantation crop sector. MMSP was established in 2005 and the earlier trials included materials from existing CRIG trials, international clones held in the CRIG germplasm collection and selections from farmers' fields. MMSP's crossing programme uses the most promising parental types to generate new sources of materials for clone selection and the choice of parents is designed to contribute data to support future recommendations for seed garden parents

Clonal and seedling cocoa types are evaluated for characteristics including yield and low losses to Black Pod disease, ease of establishment, good architecture and bean quality characteristics. The involvement of farmers and industry will ensure that the planting materials developed will have the desired agronomic characteristics and produce fermented and dried beans to meet requirements for high-quality "Ghanaian" cocoa.

It is anticipated that the first impact of MMSP will be an improvement in the output of Ghana's existing and planned seed gardens through the introduction of superior pollen parents for the existing pod bearing trees. In the longer term, trials already underway will lead to new clonal cultivars being identified that will be a key step in the modernisation of cocoa farming.



For more information please see:

<http://www.cocoaresearch.org.uk/mmssp.php>

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In 2005, CRIG and GCGRA agreed to establish MMSP with support from the Government of the Netherlands. A new four year phase was initiated in 2013 with continuing support from Cocobod, the Netherlands and GCGRA along with new partners, CRUK, Mars and Mondelez International.