

Putra J-58: the Hybrid Maize Variety



Malaysia has been fully dependent on imported grain maize to support the local animal feed industry, and the import value for grain maize has increased tremendously in the recent years. A total RM 1.3 billion is spent on the importation of maize grains. The local growing of grain maize has not attracted local growers because of the high cost of production, while the grains can be imported at lower prices. It is therefore of utmost importance for researchers to breed for high yielding maize hybrid varieties, so that they can be put into profitable production system.

Award Winner

Research towards the development of this variety started after realising that importation of maize grains increased very rapidly to support the needs of the local poultry feed industry during the past two decades. The research was therefore directed towards the production of high yielding and better quality hybrid varieties in place of the lower yielding composites. To accomplish this, an intensive research program started in 1987, and continued for 11 years, utilizing knowledge of the science of genetics and creativity of the researcher to construct such a breeding program. The basic principle behind the superiority of this hybrid variety is the exploitation of heterosis or hybrid vigour through crosses established between the parental lines.



Cobs of Putra J-58

Putra J-58 is an F1 hybrid produced from a cross between two superior inbred lines and hence shows extremely high vigour compared to the available composite varieties such as Suwan and Metro. It acquires special unique features, different from the other varieties. It is a product of intensive conventional breeding procedures, through repeated hybridisation and selection in successive generations, and therefore is not a genetically modified food product, and is safe for animal feeding, with no hazards to humans. Besides giving high grain yield, this variety matures early, possesses quite short and uniform plants, resistant to pests and diseases not requiring much spraying of pesticides and fungicides that could harm the environment and ecosystem, and has the ability to adapt to various Malaysian conditions. The grains possess higher nutritional quality for animal feed than those of the composite varieties. The height and maturity uniformity it possesses makes it very suitable for commercial production with mechanization.

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