



# Deli x AVROS Hybrid Seed

The Smarter Choice for Profitability

**Proven Pedigree,  
Assured Quality &  
High Performance**



# Proven Pedigree

The Deli dura (D) and AVROS pisifera (P) lineages used in the production of IOI DxP hybrid seed trace back to the very first generation of selection in the 1920s in Malaysia and Indonesia.

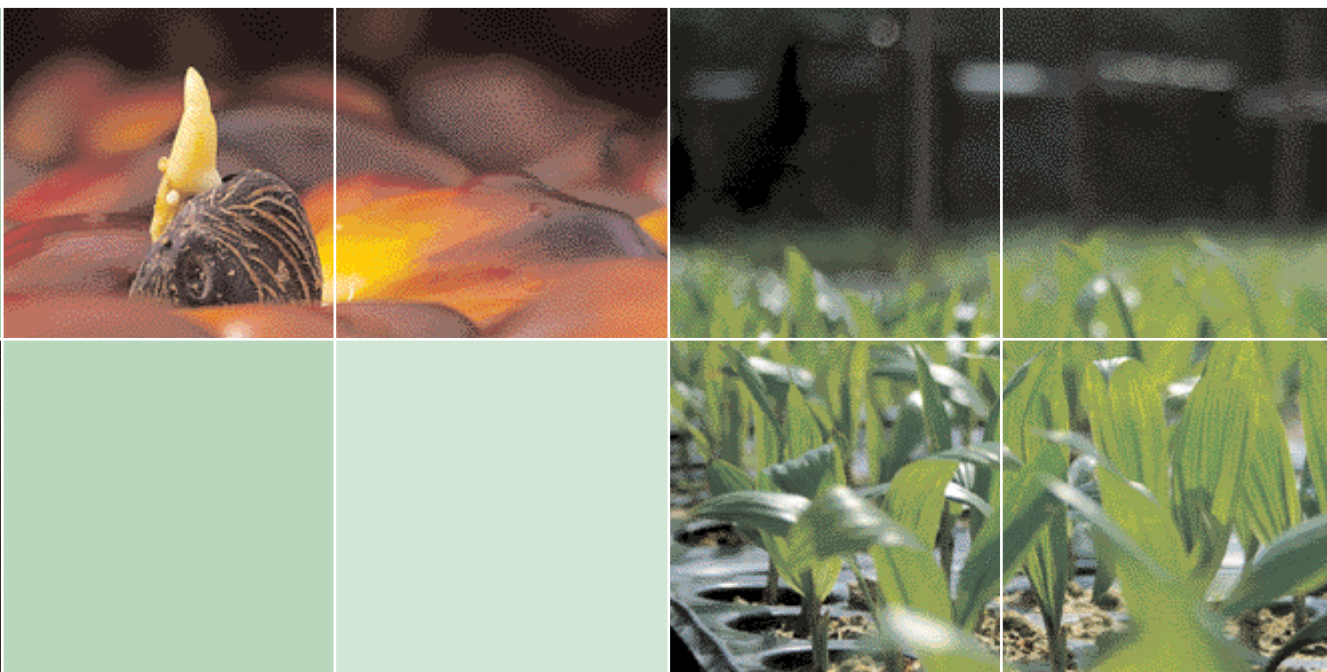
## Pedigree of Deli and AVROS lineages in IOI Group

Period	Deli lineage	AVROS lineage
1920s	G1 Serdang, M'sia	G1 Sg Pancur & Bg Bandar, Indonesia
1930s	G2 Elaeis & Ulu Remis, M'sia	G2 Polonia, Indonesia
1940s	G3 Ulu Remis, M'sia	G3 Aek Pancur, Indonesia
1950s	G4 Ulu Remis, Banting, & Johor Labis, M'sia	G4 Banting, M'sia
1960s	G5 OPGL & SBP, M'sia	G5 Dept.of Agric/MARDI, M'sia
1970s	G6 IOI seed gardens 1st generation	
1980s	G7 IOI seed gardens 2nd generation	G6 PORIM (now MPOB), M'sia
1990s		G7 IOI pisifera areas 1st generation
2000s	G8 IOI seed gardens 3rd generation	G8 IOI pisifera areas 2nd generation

- G1, G2 etc • Generation of selection
- OPGL • Oil Palm Genetics Laboratory
- SBP • Sabah Breeding Programme
- MARDI • Malaysian Agricultural Research & Development Institute
- PORIM • Palm Oil Research Institute of Malaysia
- MPOB • Malaysian Palm Oil Board

The current generation of seed parents in use represents the 7th generation of selection since that time. Over the years, both lineages are well-proven to produce DxP hybrids of superior yields.

Continuous improvement... the 8th generations of both lineages are already in field trials in IOI Group estates in Peninsular Malaysia and Sabah.



# Assured Quality

Quality assurance is accorded the highest priority in each step of the production process, right from the selection of parent palms through to the final selection of seeds for delivery to the grower. The most stringent standards are applied to the criteria used for selecting the seed parent palms, including the use of DNA-based methodologies.

No more than 2 palms are selected as dura seed parents from every 100 that are evaluated in field trials. Pisifera selection is even more stringent, with no more than 1 palm selected as a parent for every 250 that are tested.

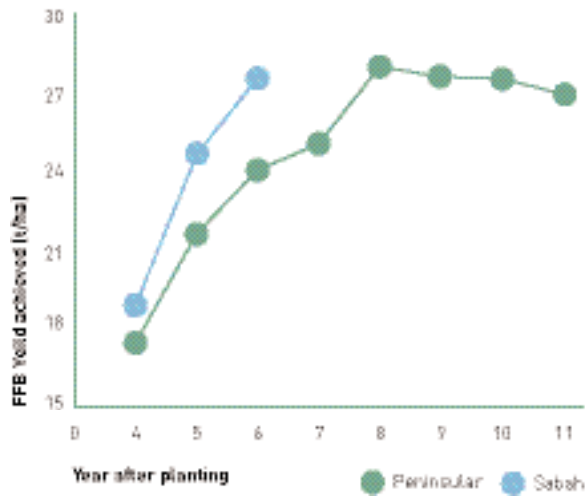
Production techniques in our seed production units are tightly controlled and closely monitored to the exacting standards set in our IOI Oil Palm Seed Quality Assurance System, to assure that the highest quality seed is produced for the grower.



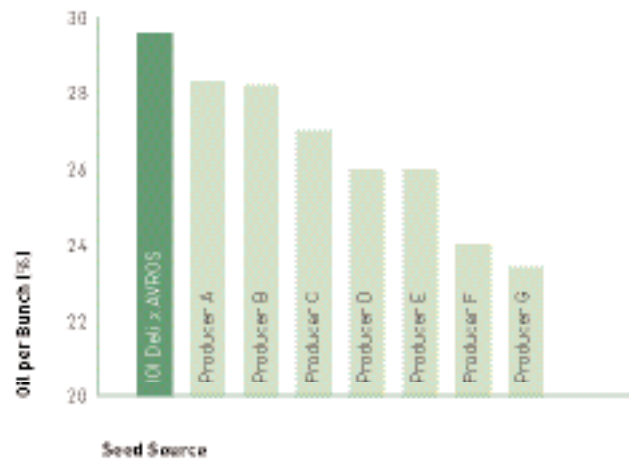
# High Performance

The IOI Deli x AVROS hybrid seed gives high yields from the earliest years of production, and is widely adaptable to different planting environments.

FFB Yield of IOI Deli x AVROS Seed



Oil Content of IOI Deli x AVROS Seed



The fruits contain more oil, a fact proven not only in IOI Group's own experiences but also in field trials conducted by 3rd parties, including the Malaysian Palm Oil Board. The grower thus gets more oil, and better profitability, from his produce.



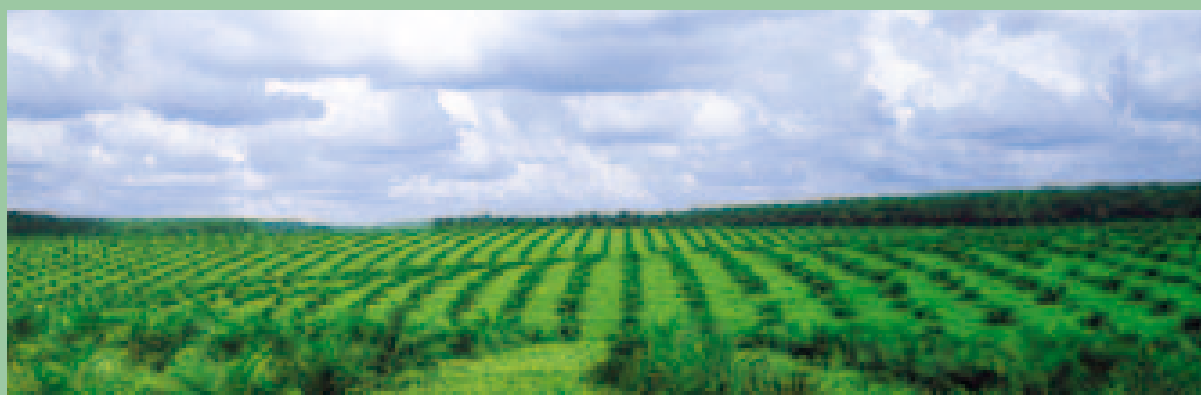
## Oil Palm Breeding in IOI Group



The first 3 clonal oil palms in the world, planted 5th January 1977 at IOI's Pamol Estate in Kluang, Johore.

Started in 1965 when Pamol and Dunlop (both now part of the IOI Group) were co-founders and equal sponsors of the Oil Palm Genetics Laboratory (OPGL), a research consortium established to carry out "investigations into the selection and breeding of oil palm, with a view to producing superior oil palm plantings for the members of the consortium" (Hardon, 1974). This tradition of meticulous research has since been continued and today, the IOI Group possesses a comprehensive oil palm breeding and selection programme geared to produce planting materials of the highest quality and genetic yield potential for oil palm growers.

At any time, over 20,000 individual palms are being evaluated in field trials in Peninsular Malaysia and Sabah, with detailed records being collected not only of fruit yield, but more importantly, oil-bearing characteristics and tree morphology, so that each new generation of seed is more efficient in converting solar energy into product i.e. oil, and the grower obtains a higher yield of oil per unit area area of land used.





IOI Research Centre



**IOI DELI x AVROS HYBRID SEED**

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Enquiries may also be made through the IOI Group website [www.ioigroup.com](http://www.ioigroup.com)