

Univanich 2021

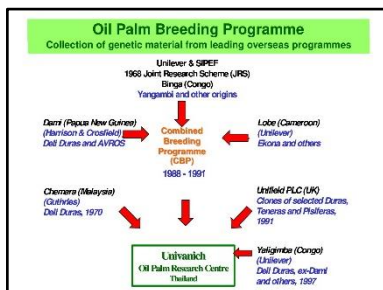
Clonal Oil Palm Seeds



The **Univanich Oil Palm Research Centre** began Thailand's first oil palm breeding programme back in 1983. This programme set-out to produce high yielding Deli X Yangambi hybrids which are especially tolerant of Thailand's dry-season drought stress. Today, this superior Univanich planting material is internationally recognised by successful oil palm growers in 15 countries around the world.

Thailand's first **Oil Palm Tissue Culture laboratory** was established at the Research Centre in 2006. During the following years of patient research, this high-technology laboratory has multiplied the top 50 mother palms identified from more than 16,000 tested dura palms. These elite clones are now well established in Thailand's first **Clonal Seed Gardens** which produce the high yielding **Univanich 2021 Clonal Oil Palm Seeds**.

The Univanich Breeding Programme is divided into four steps



Selection of the best varieties from around the world

1) Collection of Pedigree Material

Univanich has collected pedigree material from the world's leading oil palm breeding programmes. This collection has been tested and selected under the dry environment of Southern Thailand.

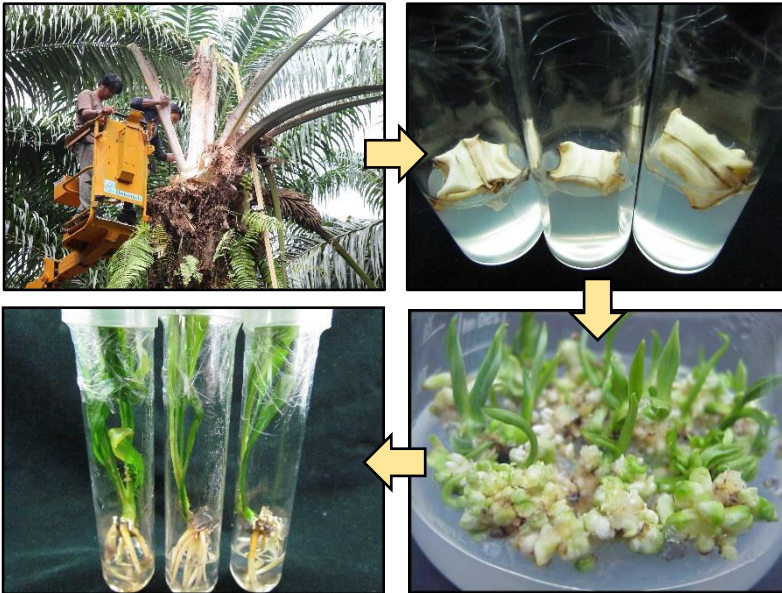


2) Further Selection

Further crossing of Dura x Pisifera parents was followed by years of testing to discover which hybrids yielded highest in terms of bunch weight and number, oil content, low height increment and disease resistance. Over 1,300 hybrid crosses have been compared in more than 1,500 ha. of Univanich yield and bunch analysis trials.



Yield testing and bunch analysis of more than 1300 hybrid crosses



Cloning of the elite Dura and Pisifera palms to create new clonal seed gardens



Univanich conal seed production for Thailand's nurseries and for export

3) Cloning of the elite parents

The very best parent palms have been identified in the hybrid progeny trials. These elite parents have been multiplied as clones by the Univanich Tissue Culture Laboratory.

The elite clones have been planted to create Thailand's first Clonal Seed Gardens. The same unique qualities discovered in the selection trials are now replicated for commercial production of high quality hybrid seeds.

4) Commercial Seed Production

Controlled pollination of this elite parental material follows strict international standards and ISO9001 control processes.

This ensures that only the best quality seeds and seedlings are delivered to Univanich customers

The potential for planters to benefit from Univanich 2021 Seed :

- **Higher yields** - At maturity 6-8 years after planting, FFB yields of 4.5-5.5 tonnes/rai(28-35 tonnes/ha) can be achieved. With good planting standards and well executed maintenance first yield can be expected as early as 24-26 months from field planting.
- **Drought Tolerance** - During prolonged periods of dry weather and an annual soil moisture deficit, Univanich material has been selected to achieve high yields in these dry conditions.
- **Improved Estate management** - Clonal seed material provides a more uniform stand of palms to enhance performance and productivity.
- **Higher Nursery standards** - With more uniformity from clonal seed there is reduced need for nursery culling.

