### **Univanich Palm Oil PCL**

Univarich has been a pioneer of the oil palm industry in Thailand since the company's first plantings in 1969. Until 1998, Univarich was developed through a joint venture with the Anglo-Dutch corporation Unilever PLC. Under the management of Unilever Plantations and Plant Science Group the company established Thailand's first oil palm research programme. Today, the Univarich Oil Palm Research Centre conducts a wide range of oil palm field trials and an advanced programme of oil palm breeding. In 2003 Univarich because a public company listed on the Stock Exchange of Thailand.





The Univanich breeding programme aims to produce high oil yielding DxP planting materials which are especially tolerant of the seasonal droughts of sub-tropical environments.

The programme was designed by Dr R H V Corley, as Head of Oil Palm Research for the Unilever Plantations and Plant Science Group. Also involved in the design strategy was renowned oil palm breeder Mr E A Rosenquist of the Harrison & Crosfield Group, a partner in the Combined Breeding Programme (CBP). Since those early days Univanich has continued to engage international consultants in oil palm breeding to advise on parental selection and to ensure that high standards of seed production are maintained. Since 1996, the programme has been guided by the prominent Malaysian oil palm breeder Dr V Rao.





issue Culture: In 2005, Univanich constructed Thailand's first laboratory designed to produce oil palm clones from the elite families identified in the company's breeding programme.





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# Deli x Yangambi Hybrid Seed

For Superior Oil Palm Profitability





### Proven Pedigree

T he Univanich collection of Deli dura (D) and Yangambi pisifera (P) has lineages which can be traced back through many generations of oil palm selection.

#### Pedigree of Univanich Tenera Seeds (Deti x Yangambi hybrids)

Selection Period	Dura Lineage	Pisifera lineage	Selection Period		
1880	Deli Avenue (Indonesia)				
1922	Serdang Avenue (Malaysia)				
1931	Ulu Remis	Yangambi INEAC* (Congo)	1930s		
1940	Elaels Estate (Malaysia)	,			
1952	Chemara (Malaysia)	Binga Estate (Congo)	1950s		
1970	Univanich Topi Estate (Thailand)	Binga JRS +	1970s		
1990s	Univanich (Topi Deli Dura)				
2000	Univanich (2nd generation)	Univanich (Thailand)	1990s		
	Univanic	h D x P			

The original collection of pedigree Deli dura imported by Univanich in 1970 has undergone further selection to create the Topi Deli Dura breeding population. Extensive bunch analysis has shown these Topi Deli Duras to have excellent bunch and fruit quality.

(Dell x Yangambi)

During the 1980s and 1990s additional collections of breeding material were imported through the Unil ever-Harrison Crosfield Combined Breeding Programme (CBP). This CBP material is derived from the breeding programmes of Binga/Yangambi in Congo, Lobe in Cameroon and Dami in Papua New Guinea. Through this exchange, Univanich obtained the famous Yangambi pisifera which have since undergone further selection through progeny testing in Univanich trials.

\* Institute Nationale d'Etude Agriculture du Corgo + Joint Research Scheme between Unilever and SIFEF

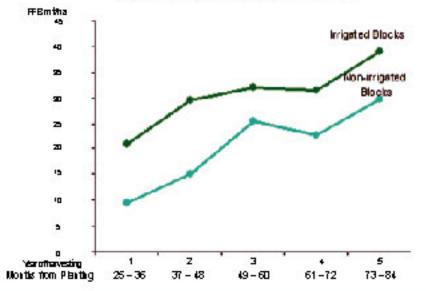
## **Superior Yields**

Univanish D x P planting material has been selected in an environment where there is a regular and sometimes severe dry season, with an average annual soil moisture deficit of 210mm. In this environment Univanish material regularly outperforms imported D x P from other regions.

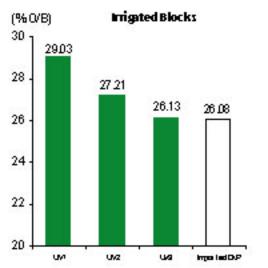
In the same environment but with irrigation to reduce climatic stress, Univanish material achieves world class standards of FFB and oil yield.

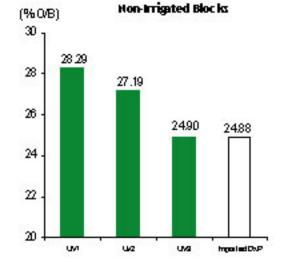
Univanich Soil Water Deficit (mm)														
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total	
2002	24	144	76	36	0	0	0	0	0	0	0	0	280	
2003	0	86	47	14	0	4	0	0	0	0	0	0	149	
2004	28	94	94	26	0	0	0	0	0	0	0	18	260	
2005	111	146	22	31	0	0	0	0	0	0	0	0	310	

#### FFB Yields of Univanich DoP (Deli × Yangambi mixed commercial crosses)



#### Bunch Oil Content (Percentage oil to bunch)





### **Assured Quality**



Rigorous field testing and bunch analysis ensures that only the highest yielding hybrid crosses are accepted into the Univanich seed production programme.

Univanich customers can be assured by ISO 9001:2000 Certification and by the regular auditing of production processes necessary to maintain this high quality standard. Recent audits of Univanich DxP crosses in 2000/2001 commercial plantings have revealed 99.73% pure tenera hybrids.



Disease-Free Status: The oil palm industry in Thailand is similar to Malaysia, Indonesia and Papua New Guinea in being relatively free of major diseases. Lethal diseases such as Vascular Wilt, Fatal Yellowing or Lethal Bud Rot, which may infect oil palms in parts of Africa or South and Central America, do not occur in Thailand. Official inspection and Phytosanitary Certificate is provided for each export consignment of Univanich seeds, issued by the Plant Quarantine Service of Thailand's Ministry of Agriculture.

