

Certification

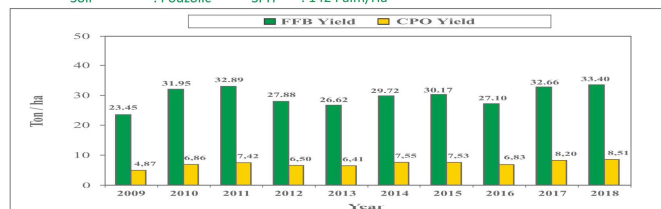
Topaz DxP high-yielding varieties have, since 16 January 2004 been approved and certified by the Ministry of Agriculture, Republic of Indonesia for large scale commercial planting in Documents **No. 57, 58, 59 and 60/KPTS/SR.120/1/2004**; and on 1st February, 2019 Topaz GT (moderately Ganoderma-tolerant) DxP variety was released for planting in Ganoderma high risk areas in the Ministry's Document **No. 45/KPTB/KB.020/2/2019**.

OPRS Topaz has obtained ISO 14001:2015 (SGS); and ISO 9001:2015 (TUV NORD) Management System certifications since 2007.

Commercial Yield Profiles

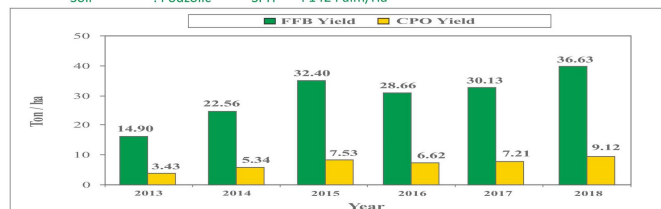
FFB and CPO Production in Bahilang Estate, Serdang Bedagai Regency, North Sumatra

YOP : 2006 Area : 232 Ha
Soil : Podzolic SPH : 142 Palm/Ha



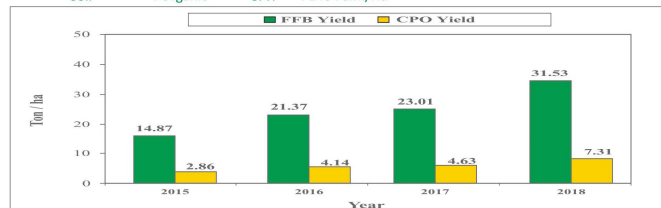
FFB and CPO Production in Gondai Estate, Pelalawan Regency, Riau, Sumatra

YOP : 2010 Area : 594 Ha
Soil : Podzolic SPH : 142 Palm/Ha



FFB and CPO Production in Tanjung Selamat Estate, Labuhanbatu Regency, North Sumatra

YOP : 2012 Area : 464 Ha
Soil : Organic SPH : 148 Palm/Ha



For More Information, Please Contact :

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OPRS TOPAZ
Riau - Indonesia

Oil Palm Seed

Topaz DxP
Crème de la Crème

Tested - Proven



Certified Company
No. 16 00 L 13187



Certificate No. ID 05/65250



OPRS TOPAZ
Riau - Indonesia

Oil Palm Research Station Profile (OPRS) Topaz - Riau

Groundwork for the establishment of Topaz OPRS commenced in 1992 with the selection and crossing of parental palms in Costa Rica. These elite parent materials and their 'test-cross' progenies were established in OPRS Topaz in 1996. Another large block of the test-crosses was also established on deep organic soil in North Sumatra for concurrent evaluation.

The primary research objective of OPRS Topaz is to produce oil palm planting materials with superior oil yields and desirable secondary characteristics through continuous and systematic breeding programs. These programs are being carried out with the expertise and support from experienced international and local oil palm researchers using biotechnology, agronomy as well as the study on the interactions with pests & diseases as tools for selection.

Parent Selection

Asian Agri now utilize much advanced selected dura and pisifera parental palms of renowned research origins in Malaysia, Papua New Guinea, Honduras, Cameroons, Ghana, Ivory Coast, Nigeria and Zaire.

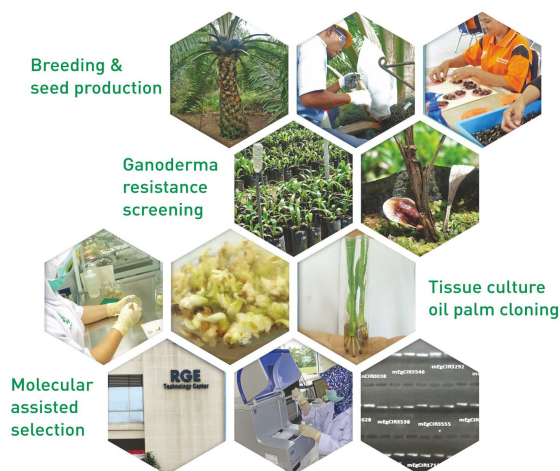
The large germplasm collection in OPRS Topaz, was further enriched with the addition of *E. oleifera* var Taisha materials from Ecuador in April 2005; and diverse 'wild' genetic materials from the Cameroons in May, 2008; as well as from Angola in October, 2009.

Tested and Proven on Organic & Mineral Soils

Much valuable genetic information on combining ability was obtained from the well planned breeding trials involving 440 DxP progenies using 'connected' mating design for the test-crossing of 223 Deli dura with 50 pisifera lines in Costa Rica. The DxP test-cross progenies were tested in 3 different locations on mineral and organic soils, covering more than 600 ha in North Sumatra and Riau.



The Synergy Of Various Activities Ensuring Topaz Planting Materials Quality



Quality Control in Seed Production

The whole process of seed production is under the strictest supervision and control have consistently ensured seed purity as is evident in the results of extensive "fruit-cut test" surveys done in commercial plantings of DxP Topaz materials which showed almost nil dura contamination. This was more recently reaffirmed in molecular shell-gene tests done on nursery seedlings.

Technical Advisory Support

Extension advisory services, particularly for nurseries, are available from an experienced team, if needed, as a commitment to provide assistance for best results.



Development of the Superior Topaz Varieties

Based on the genetic values obtained through evaluations in well-designed, replicated breeding trials, progressive improvement and selection of the elite dura and pisifera parent palms was made possible for their use in producing these superior DxP Topaz hybrid varieties:

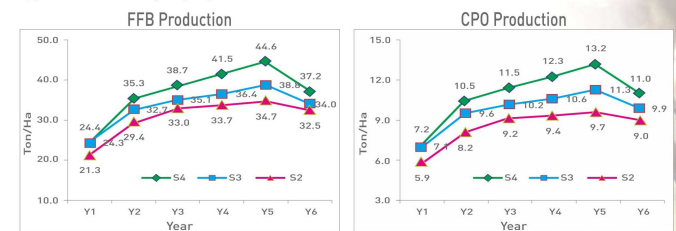
- Topaz 1 (Deli dura x Nigeria pisifera)
- Topaz 2 (Deli dura x Ghana pisifera)
- Topaz 3 (Deli dura x Ekona pisifera)
- Topaz 4* (Deli dura x Yangambi pisifera)
- Topaz GT (DxP moderately Ganoderma-tolerant)

* Being morphologically larger than the other varieties, it is mainly produced for trial purposes only.



Topaz DxP Selection Series (S2, S3 & S4)

Topaz DxP Series 4 materials are currently the latest of the DxP Topaz varieties through a series of selections that started with Series 1 of Generation 1 progressing to the Generation 2 Series 2, and then Series 3 progenies - all based on sustained yield performances in breeding trials. It combines the best all of the Topaz DxP crosses to enhance yield to 12 tons CPO/ha/year and 40.5 tons FFB/ha/year with 29.7% OER and 4.1% KER. Thus, it is, in fact, "The Best of The Best" selections from the 41 breeding trials evaluating 1,107 progenies established from 2002 until 2018 on a range of soil types in different geographical locations in Sumatra.



Note : The marked decline in production during the 6th year in 2016 was because of the severe drought experienced in year 2015

Topaz GT

This moderately Ganoderma-tolerant Topaz DxP variety has undergone extensive screening and is recommended for planting in high risk Ganoderma areas. It has a yield potential of 9.2 tons CPO/ha/year and 34.5 tons FFB/ha/year with 26.7% OER and 4.3% KER.

Superior Characteristics of Topaz DxP

- Early yielding (less than 30 months after field-planting)
- High FFB & oil yields from commencement of production
- High oil extraction rate
- Moderately slow height increment
- Superior adaptability in organic & marginal soils.
- Less susceptible to Ganoderma

