



- Palm oil is an edible vegetable oil derived from the mesocarp of the fruit of the oil palms

- Palm oil is an incredibly efficient crop, producing more oil per land area than any other equivalent vegetable oil crop.

- NBPOL is one of the first companies in the world to achieve RSPO (Roundtable on Sustainable Palm Oil) certification.

KEY CASE STUDY

SUSTAINABLE PALM OIL PLANTATION

GEMNETICS

New Britain Palm Oil Ltd (NBPOL) in Papua New Guinea produces sustainable palm oil and has an extensive breeding program that has utilized the Gemview software since 2012 to increase the effectiveness of their program. The business is one of several oil palm companies owned by Sime Darby, and has over 83,000 hectares of planted oil palm plantations, a further 10,000 hectares under preparation for oil palm, over 5,600 hectares of sugar cane, and a further 9,000 hectares of grazing pasture and twelve oil mills. NBPOL also operates closely with the local community and around 25% of the fruit for processing is supplied by over 17,000 smallholders.

The Gemnetics team has worked with NBPOL to organise and analyse 40 years of data that had been collected. Gemview now holds more than 93 million data points, making them readily accessible to all the participants in their breeding efforts in Papua New Guinea, Indonesia and Belgium.

The project dealt with accumulated data stored in both outdated software and excel spreadsheets, which were highly specific, lacked flexibility, and were not user-friendly. The amount of existing data in the breeding program was almost overwhelming but totally underutilized. Training staff to use the wealth of organized Gemview data was time-consuming but incredibly valuable in the long term.

By working together with the technical Gemnetics team and matching the operation of the breeding program with the company's strategic R&D approach and efficiency of production, it allowed NBPOL to answer important questions on performance of the germplasm and quality attributes. All Gemview users can easily screen traits recorded on all breeding trials of the program through the years and seasons, whether it covers several years or just a few months making it a platform of benefit to multiple stakeholders.