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EL PODER TRANSFORMADOR DE LA PALMA DE ACEITE
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The success of oil palm in savannah areas in the Democratic Republic of Congo (D.R.C.)

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PRODAKOR :Programme de Développement Agricole dans la Province du Kasaï-Oriental et Lomami

PRODAKOR funded by ENABEL (Belgian cooperation) launched a strong dynamic in the palm sector in the savannah area.

Over a 5 year period (2016-2020):

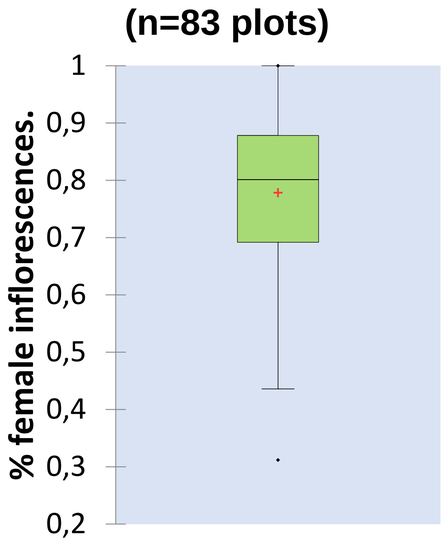
- 2 700 ha of improved Tenera Palms planted
- 2 300 beneficiaries
- A network of certified nurseries.

PRODAKOR certified nursery

Field surveys on oil palm cropping practices, performances of palms

5 years old palm in a farmer plot.

Graph 1 : Sex ratio (n=83 plots)



Surveys were deployed in 2021 on a total of 102 planters :

- The use of a fusarium wilt-tolerant variety, with low growth in height and a small bulkiness appears to be adapted to local conditions where water deficit is marked.
- The low-lipase character makes it possible to satisfy the labour constraints and harvests can thus be more spaced.
- 90% of the farmers were growing associated crops at the young age of palms (mostly food crops).
- Young crops (4-5 years old), showed a production between 6 and 10 tons of Fresh Fruit Bunches (FFB) per hectare per year, with a good sex ratio (graph 1)
- The income generated was 1000 to 1500 dollars per hectare per year, it permitted many small farmers to get out of the poverty line.

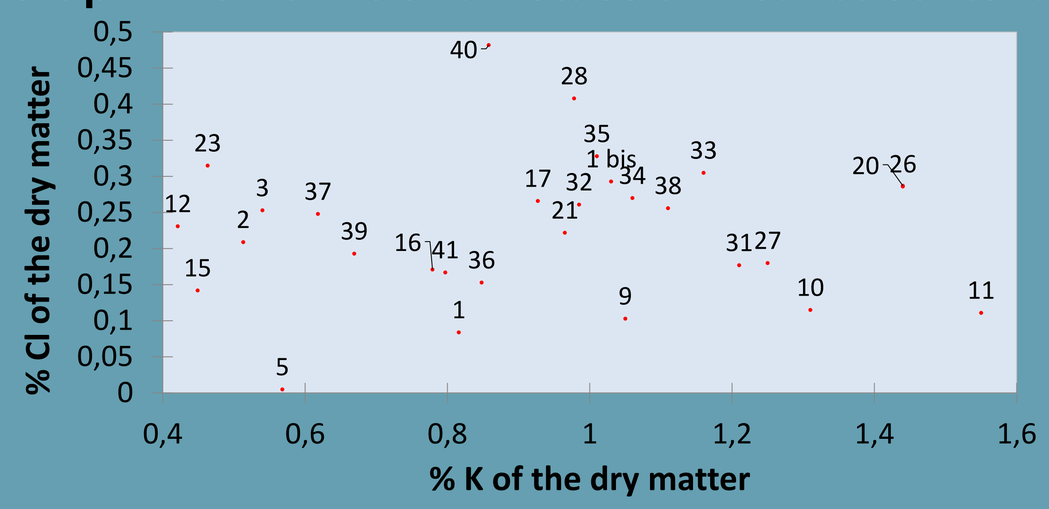
Constraints and possible levers for improvement

- None of the farmers visited did use mineral fertilizers on palm trees, only 21% of them have organic matter restitution practices (plant residues from crops or weeds, manure, droppings or compost).
- Half of the plantations showed low leaf nitrogen values (<2.5% of the dry matter), due to very strong competition with grasses (*Hypparhennia* and *Imperata* - dominated savannahs)

Nitrogen deficiency symptoms observed in a young oil palm plot (strong yellowing of fronds)

- Farm experiments will be carried out in the next phase of PRODAKOR (2023-2027) to increase soil fertility and improve water and mineral nutrition of oil palm (especially in Chlorin).

Graph 2 :Chlorine and Potassium leaflet contents



- Chlorin nutrition evaluated by foliar diagnosis in 29 plots, was very deficient. All plots were under the Cl critical level of 0.5% in DM graph 2 (great distance from the coast - 1200 km - and absence of Chlorin fertilizers applications).
- Chlorine plays an essential role in stomatal regulation. Altered stomatal regulation is a major factor that can reduce growth and cause wilting symptoms in chlorine-deficient palm trees.

The strong dynamism of the actors of the sector (planters, nurserymen, processors) is an essential asset to continue and densify the areas where the first plantations were installed and to professionalize the oil palm sector in Kasaï-oriental and Lomami.
Developing successful oil palm smallholdings in the savannah areas of Democratic Republic of Congo is contributing to the protection of one of the most important forest of the African continent, while improving farmers' livelihoods.