



PALM OIL PRODUCTION MACHINE

Project 031

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1. Features:

- The use of machines allows us to produce a greater quantity of oil daily and with less use of wood;
- The oil produced is of better quality;
- Machines construction is possible in Africa with simple technologies.
- The duration, if the machines are used correctly, is long and the limited maintenance - when necessary - can be performed without returning the machines to the workshop.

2. Quantity of oil that can be produced (indicative values):

Without machine:

- normally about 100 kg are boiled in a drum of oil; the yield with this traditional method is **8 to 15 liters** per day
- (the minimum value is for spontaneous, untreated and particularly low-oil palm trees)

With machines:

- oil yield for each cycle of 100 kg of fruit: from **10 to 25 liters**
- (the minimum value is for spontaneous, untreated and particularly low-oil palm trees)
- number of daily cycles: **up to 3 over about 12 working hours** (some villages has reached **4 daily cycles**)
- total oil yield with 3 daily cycles: from **30 to 75 litres**
- higher maximum daily production of oil: **60 litres**
- higher average daily production of oil: **30 litres**
- minimum selling price of the oil on the local market (Guinea Bissau): **1 € / liter**
- higher average daily earnings: **30 €**

3. Cost of the machines and amortization times:

- cost of the machines (indicative, based on experience in Guinea Bissau): **1,550 €**
- average days of annual production (6 months x 12 days/month): **120 days**
- average possible annual earnings (129 days x 30 € / day): **3,600 €**
(or it could be double, working all the year)

> so the machine **pays for itself in about one year, using only half of higher average annual earning.**

4. For further technical documentation:

On the website www.ps76.org, click on English flag, then Palm oil diffusion in other African countries - West Africa you can find:

- Project drawings
- Manuals
- Movie showing the operations

For more information, please write to info@ps76.org: we'll be glad to help you on specific questions.