



# MAURITIUS SUGAR INDUSTRY RESEARCH INSTITUTE

## **Recommendation sheet**

July 1998, No. 108\*

### **ACHIEVING OPTIMUM GROUNDNUT PLANT DENSITIES**

*Groundnut yield in commercial plantations may be optimized by establishing the appropriate plant population densities.*



Field with optimum density

#### **RECOMMENDATIONS TO ACHIEVE REQUIRED PLANT DENSITIES**

##### ◆ **Seed quality**



Pods appearance at mature stage

- Use good quality seeds with at least 95% germination.
- If producers keep their own seeds, the following measures are recommended :
  - harvest pods at maturity, when they are dark and have brown or black mottles on their inner surfaces
  - dry nuts to 8% moisture content. If nuts are to be dried in an oven, do not exceed 35°C. Store in a cool, dry and well-aerated place (properly dried nuts will keep for up to one year).

##### ◆ **Seed treatment**

- Shell the nuts and select healthy seeds
- Dust the seeds with either *Captan 75* or *Thiram 75* at a rate of 2 g kg<sup>-1</sup> of seeds

##### ◆ **Seed dormancy**

- For varieties *Cabri* and *Sylvia*, seeds can be planted as from 2 weeks after harvest.
- Varieties *Veronica* and *Venus* should not be planted until about 2 months after harvest because their seeds have a longer dormancy period. Dormancy can be broken artificially by soaking the seeds overnight in a solution of 50 ppm of ethephon (Ethrel) before planting.

##### ◆ **Cropping system**

|   | Pure stand   | Plant cane interrow       |                            | Ratoon cane interrow                      |
|---|--|---------------------------|----------------------------|---|
| Planting method   | Groups of 4 rows at a spacing of 0.4 m between rows and 0.8 m between groups | One row/<br>cane interrow | Two rows/<br>cane interrow | One row in<br>alternate<br>cane interrows |
| Plant density<br>plants ha <sup>-1</sup><br>(plants arp <sup>-1</sup> ) | 200 000<br>(85 000)  | 62 500<br>(26 400)        | 125 000<br>(52 800)        | 31 250<br>(13 200)                        |

Spacing of 0.1 m between seeds within the row

\* These recommendations supplement those in *Growing Groundnut : Advisory Bulletin No. 6 (1994)*, Réduit, Mauritius Sugar Industry Research Institute

