



## BURKINA Faso South Sudan Savanna FERTILIZER USE OPTIMIZER:



### The below assumes:

- Measurement is with a Lafti water bottle lid that holds 7.5 ml and about 5.25 g urea and 8.25 g DAP, TSP or KCl, or with a Gino tomato cup of 70 ml bottle to hold 50 g urea and 77 DAP, TSP or KCl.
- It is assumed maize and sorghum are planted with 80 cm row spacing band application; soybean, cowpea, and groundnut 40 cm; and rice 20 cm.
- It is assumed grain prices per kg: 126 maize; 142 sorghum; 119 rice, Groundnut 310, Cowpea 290, Soybean 143.
- It is assumed 50 kg of fertilizer: 25000 CFA urea and KCl; 26000 CFA TSP and 42000 CFA.
- **Broadcast width: 4 m; WAP = Week After Planting**

### Level 1 financial ability.

- For maize band apply 54kg/ha urea (water bottle lid for 1.2 m) at 6 WAP
- For sorghum, band apply 67 kg/ha of DAP (water bottle lid for 1.1 m) at 2 WAP.
- For lowland rice, broadcast apply 36 kg/ha of urea (water bottle lid for 7 m) at panicle initiation
- For Groundnut band apply 36 kg/ha of TSP (water bottle lid for 2.9 m) at 2 WAP

### Level 2 financial ability.

- For Rice, lowland, broadcast 44 kg/ha urea (water bottle lid for 5.8 m) at 2 WAP and 44 kg/ha at panicle initiation (water bottle lid for 5.8 m).
- For Maize band apply 53 kg/ha of urea (water bottle lid for 1.2 m) at 2 WAP and again at 6 WAP
- For sorghum, band apply 100 kg/ha of DAP (water bottle lid for 0.8 m) at 2 WAP.
- For Groundnut band apply 32 kg/ha of DAP (water bottle lid for 2.4 m) and 39 kg/ha TSP (water bottle lid for 2.7 m) at 2 WAP

### Level 3 financial ability (maximizes profit per ha)

- For Rice, lowland, broadcast 50 kg/ha urea (water bottle lid for 7.6 m) and 21kg/ha KCl (water bottle lid for 17.9 m) 2 WAP; broadcast 81 kg/ha urea at panicle initiation (water bottle lid for 4.7 m).
- For Maize band apply 50 kg/ha of urea (water bottle lid for 1.3 m) at 2 WAP and 39 kg/ha of DAP (water bottle lid for 0.6 m) at 6 WAP; band apply 81 kg/ha urea at 6 WAP (water bottle lid for 0.8 m)
- For sorghum, band apply 100 kg/ha of DAP (water bottle lid for 0.8 m) at 2 WAP.
- For Groundnut band apply 100 kg/ha of TSP (water bottle lid for 1.1 m) 2 WAP



# BURKINA Faso North Sudan Savanna FERTILIZER USE OPTIMIZER: paper



## The below assumes:

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- It is assumed: maize and sorghum are planted with 80 cm row spacing band application; soybean, cowpea, and groundnut 40 cm; and rice 20 cm.
- It is assumed grain prices per kg: 126 maize; 142 sorghum; 119 rice, Groundnut 310, Cowpea 290, Soybean 143.
- It is assumed 50 kg of fertilizer: 25000 CFAurea and KCl; 26000 CFA TSP and 42000 CFA.
- **Broadcast width: 4 m; WAP = Week After Planting**

## Level 1 financial ability.

- For Rice, lowland, broadcast 44kg/ha urea (water bottle lid for 2.9 m) at 6 WAP.
- For Maize band apply 49 kg/ha urea (water bottle lid for 0.8 m) at 6 WAP
- For sorghum, band apply 28 kg/ha of urea (water bottle lid for 1.1 m) at 6 WAP.

## Level 2 financial ability.

- For Rice, lowland, broadcast 40 kg/ha urea (water bottle lid for 3.1 m) at 2 WAP and 68 kg/ha at panicle initiation (water bottle lid for 1.9 m).
- For Maize band apply urea 40 kg/ha (water bottle lid for 0.8 m) at 2 WAP and 50 kg/ha (water bottle lid for 6.5 m) at 6 WAP
- For sorghum, band apply 39 kg/ha of urea (water bottle lid for 0.8 m) at 6 WAP.  
For Soybean band apply 26 kg/ha of DAP (water bottle lid for 3 m)

## Level 3 financial ability (maximizes profit per ha)

- For Rice, lowland, broadcast 40 kg/ha urea (water bottle lid for 3.1 m) at 2 WAP and 68 kg/ha at panicle initiation (water bottle lid for 3.9 m).
- For Maize band apply 41 kg/ha of DAP (water bottle lid for 1.3 m) at 2 WAP and 107 kg/ha of urea (water bottle lid for 0.3 m) at 6 WAP
- For sorghum, band apply 48 kg/ha of urea (water bottle lid for 0.6 m) at 2 WAP.
- For Groundnut band apply 27 kg/ha of DAP (water bottle lid for 2 m) and 7 kg/ha TSP (water bottle lid for 7.5 m) at 2 WAP
- For Soybean band apply 41 kg/ha of DAP (water bottle lid for 1.3 m) and 21 kg/ha TSP (water bottle lid for 2.5 m) at 2 WAP



**BURKINA Faso Sahel**

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- Measurement is with a Lafti water bottle lip that holds 7.5 ml and about 5.25 g urea and 8.25 g DAP, TSP or KCl, or with a Gino tomato cup of 70 ml bottle to hold 50 g urea and 77 DAP, TSP or KCl.
- It is assumed maize and sorghum are planted with 80x40 cm spacing and the legumes (cowpea, and groundnuts) are planted with 40 X 40 cm spacing.
- Fertilizer costs per 50 kg bags are: 25,000 for urea and KCl, and 26,000 each for TSP.
- Commodity values per kg are: 126 for maize; 141 for sorghum; 118 for rice; 310 for groundnut and 290 for cowpea

**Broadcast width: 4 m; WAP = Week After Planting**

### **Level 3 financial ability (maximizes profit per A).**

- Sorghum. Apply 23 kg/ha TSP at planting time (point apply with 1 water bottle cap for 5.2 m)
- Lowland rice. Apply 43 kg/ha urea at tillering time (broadcast 1 gino tomato can 70 mL 3 m wide x 3.6 m long.)
- Pearl millet. Point apply 26 kg/ha TSP at 2 WAP (point apply with 1 water bottle cap for 4.6 m). Sidedress 50 kg/ha urea (point apply with 1 water bottle cap 1.5 m) at 6 WAP