



**NIGER SUDAN AEZ
FERTILIZER USE OPTIMIZER:
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The below assumes:

Measurement is with a: Oriba bottle cap (**Oriba**) of 7 ml: holds about 4.9 g urea, and 7.7 g DAP, TSP or KCl.

Row spacing: 80 x 40 cm for maize and sorghum; 100 x 100 cm for pearl millet; 20 cm for rice; 80 x 50 cm for cowpea; and 80 x 20 cm for groundnut.

Grain prices: is assumed per kg (F CFA): pearl millet 160; sorghum 170; maize 180; rice 280; groundnut unshelled 180; cowpea 200.

Fertilizer use costs per 50 kg bag (F CFA): urea 13500; TSP 18000; DAP 20000; KCl 15000; SSP 12500 and NPK (15-15-15) 13500.

Broadcast width: 2.0 m; **DAS**=Days After Sowing; **DAT**= Days After Transplanting

Level 1 financial ability

Lowland rice: broadcast 81 kg/ha Urea at panicle initiation (1 Oriba for 0.3 m);

Sorghum: point apply and incorporate 71 kg/ha DAP, (1 Oriba for 2.8 hills); 20 kg Urea, (1 Oriba for 5.8 hills) 5-10 DAS;

Maize: point apply and incorporate 60 kg/ha Urea at 8 leaves stage (1 Oriba for 2.4 hills) and 78 kg/ha urea at tasseling (1 Oriba for 1.5 hills);

Groundnut: band apply 23 kg/ha TSP at 5-10 DAS, (1 Oriba for 4.2 m);

Cowpea: Point apply 24 kg/ha KCl 5-10 DAS , 1 Oriba for 8 hills).

Level 2 financial ability

Lowland rice: Broadcast 190 kg/ha Urea, (1 Oriba for 0.1 m) and 22 kg/ha KCl, (1 Oriba for 1.8 m) at panicle initiation;

Pearl millet: point apply and incorporate 24 kg/ha Urea 5-10 DAS, (1 Oriba for 2 hills);

Sorghum: point apply and incorporate 125 kg/ha DAP, (1 Oriba for 1.9 hills) and 27 kg/ha KCl, (1 Oriba for 8 hills) 5-10 DAS;

Maize: point apply and incorporate 100 kg/ha Urea at 8 leaves stage (1 Oriba for 1.5 hills) and 100 kg/ha urea at tasseling (1 Oriba for 21.5 hills);

Cowpea: point apply and incorporate 37 kg/ha DAP, (1 Oriba for 5.2 hills) and 49 kg/ha KCl (1 Oriba for 4 hills) 5-10 DAS;

Groundnut: band apply and incorporate 68 kg/ha TSP 5-10 DAS (1 Oriba for 1.5 m).

Level 3 financial ability

Lowland rice: broadcast 20 kg/ha KCl 3-7 DAT (1 Oriba for 2.4 m). Broadcast 176 kg/ha urea at panicle initiation (1 Oriba for 0.2 m);

Pearl millet: point apply and incorporate 20 kg/ha Urea 5-10 DAS (1 Oriba 2.3 hills)

Sorghum: point apply and incorporate 118 kg/ha DAP (1 Oriba for 2.0 hills) and 23 kg/ha KCl (1 Oriba for 10.4 hills) 5-10 DAS;

Maize: point apply and incorporate 100 kg/ha urea at 8 leaves stage (1 for 1.5 hills). Point apply and incorporate 100 kg/ha urea at tasseling (1 for 1.5 hills);

Cowpea: point apply and incorporate 33 kg/ha DAP (1 Oriba for 5.8 hills) and 46 kg/ha KCl, (1 Oriba for 4.2 hills) 5-10 DAS;

Groundnut: band apply and incorporate 62 kg/ha TSP 5-10 DAS (1 Oriba for 1.5 m).