



Malawi Fertilizer Use Optimizer: paper version, Zone 760-1300 m asl
Prepared by: Patson C. Nalivata & Moses W. Munthali
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The below assumes:

- **Calibration measurement unit:** a water bottle cap (CAP, 8 mL) for 5.6 g urea, 8 g of NPS.
- **Row spacing:** maize, 75 cm; bean, soybean, cowpea all 50 cm; pigeon pea 75 cm.
- **Apply point spacing:** maize and cowpea, 25 cm; g/nut 20 cm; pigeon pea 75 cm.
- **Grain prices:** per kg (MK): 120 maize; 350 bean; 120 rice; 300 sorghum; 600 pigeon pea; 600 cow pea; 700 g/nut;
- **Fertilizer use costs per 50 kg bag (MK):** 25000 urea; 23000 NPS.
- **Weeks after planting (WAP)**

Level 1 financial ability

- Maize: point apply 69 kg NPS, 8 WAP (1 CAP for 5.8 plants or 2.9 points)
- Cowpea: point apply 55 kg NPS at planting (1 CAP for 7.9 plants or 4 points).
- Bean: band apply 33 kg Urea at planting (1 CAP for 2.2 m).
- Soybean: band apply 66 kg NPS at planting (1 CAP for 1 m).
- Pigeon pea: point apply 85 kg NPS at planting (1 CAP for 5.1 plants or 2.5 points).

Level 2 financial ability

- Maize: 137 kg NPS at 2 WAP (1 CAP for 3.1 plants and 1.5 points); point apply 45 kg urea, 8 WAP (1 CAP for 6.2 plants and 3.1 points).
- Cowpea: point apply 72 kg NPS at planting (1 CAP for 6.5 plants and 3.2 points)
- Bean: band apply 30 kg Urea at planting (1 CAP for 9.4 m) at planting.
- Soybean: band apply 90 kg NPS at planting (1 CAP for 0.7 m).
- Pigeon pea: point apply 98 kg NPS at planting (1 CAP for 4.4 points).
- Sorghum: 52 kg NPS, 2 WAP (1 lid for 8.2 plants and 4.1 points); point apply 28 kg urea, 8 WAP (1 lid for 10 plants and 5 points).

Level 3 financial ability

- Maize: 150 kg NPS at 2 WAP (1 CAP for 2.9 plants and 1.5 points); point apply 121 kg urea, 8 WAP (1 CAP for 2.4 points).
- Cowpea: point apply 89 kg NPS at planting (1 CAP for 4.8 plants and 2.4 points)
- Bean: band 71 kg NPS at planting (1 CAP for 1.5 m)
- Soybean: point apply 142 kg NPS at planting (1 CAP for 0.4 m).
- Pigeon pea: point apply 125 kg NPS at planting (1 CAP for 3.5 plants and 1.7 points).

Commented [a1]: You have sorghum for level 2 so it should be there for level3.