**Zambia Fertilizer Use Optimizer: Zone 1.**

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**The below assumes:**

* + Calibration measurement is with a water bottle lid (CAP): 8 mL, 5.6 g urea, 8g NPK
* It is assumed maize is planted with 75x30 cm spacing, Soybean 60 x15cm, Groundnut 60 x15cm, Cowpea 60x 15cm, Sorghum 75x30cm.
* It is assumed grain prices per kg (ZMK): 2 maize; 8 Soybean; 8 Groundnut; 8 Cowpeas; 2 Sorghum
* It is assumed 50 kg of fertilizer use costs (ZMK): 350 urea; 400 NPK.
* Application rates are in kg/ha.

**Level 1 financial ability.**

* For maize, point dress 62 kg/ha urea 6 WAP (1 CAP for 3.5 points).
* For Groundnuts, band dress 59 Kg/ha NPK applied at planting (1 CAP for 2 m)
* For Cowpeas, band dress 17 Kg/ha NPK applied at planting (1 CAP for 7m).

**Level 2 financial ability.**

* For maize, Point dress 75 Kg/ha NPK applied at planting (1 CAP for 6 points); Point dress 76 kg/ha urea 6 WAP (1 CAP for 3 points).
* For Soybean, band dress 45 Kg/ha NPK applied at planting (1 CAP for 3 m).
* For Groundnut, band dress 89 Kg/ha NPK applied at planting (1 CAP for 2m)
* For Cowpeas, band dress 37 Kg/ha NPK applied at planting (1 CAP for 4 m)

**Level 3 financial ability (maximize profit per acre).**

* For maize, Point dress 391 Kg/ha NPK applied at planting (1 CAP for 1 point) and Point dress 88 kg/ha urea 6 WAP (1 CAP for 1 points).
* For Soybean, band dress 84 Kg/ha NPK applied at planting (1 CAP for 2m).
* For Groundnuts, band dress 61 Kg/ha NPK applied at planting (1 CAP for 2m)
* For Cowpeas, band dress 48 Kg/ha NPK applied at planting (1 CAP for 3m)