|  |  |  |
| --- | --- | --- |
| Image result for Zambia Agriculture research Institute logo | **Zambia: fertilizer rate adjustment for ISFM practices and soil test information** |  |
| **ISFM practice** | **Fertilizer reduction, % or kg/ha** |
| **Urea** | **DAP or TSP** | **NPK 10-20-10+6S** |
| Previous crop was a **green legume manure** crop (Mucuna, Crotalaria and Lablab)  | 100% | 8 kg | 28 kg  |
| **Early incorporation of a green legume manure** (Mucuna, Crotalaria and Lablab) crop | 57 kg | 3 kg | 11 kg  |
| For each 1 t of fresh **leguminous leafy tree** prunings applied (e.g, Gliricidia, Leucaena, Sesbania, Senna)  | 10 kg | 1 kg | 6 kg |
| **Farmyard manure** per 1 t of dry material | 2 kg | 1 kg | 1 kg |
|  Residual value of farmyard manure applied for the previous crop, per 1 t | 1 kg | 0.4 kg | 0.4 kg |
| **Dairy or poultry manure**, per 1 t dry material | 24 kg | 7 kg | 14 kg |
|  Residual value of dairy and poultry manure applied for the previous crop, per 1 t | 5 kg | 1.4 kg | 3 kg |
| **Compost**, per 1 t/ha dry wt.  | 20 kg | 1 kg | 20 kg |
| **Doubled-up legume-technology** (pigeonpea)  | In the second year of rotation a mean reduction of over 50 kg urea  |
| **Cereal-bean intercropping** | Increase DAP/TSP by 18 kg/ha, but no change in N & K compared with sole cereal fertilizer |
| **Cereal-other legume** (effective in N fixation) **intercropping** | Increase DAP/TSP by 20 kg/kg, reduce urea by 30 kg/ha, & no change in K compared with sole cereal fertilizer |
| If **Mehlich III P >18 ppm** | Do not apply P  |
| If soil test **K < 0.25 cmol/kg** | Apply 20 kg/ha KCl |