



AEZ Cold to Very Cold Sub-Afro Alpine Elevation >2500 m



Assumptions:

- **Measurement** is with a: 500ml Highland water bottle CAP that holds 6.7 ml, 4.7 g urea, and 7.4 g DAP, TSP, and KCl; 500ml Highland water (2-cm bottle) to hold 47 ml, 33 g urea and 52 g DAP, TSP, or KCl.
- **Planting** is with row spacing of: 20 cm for barley and wheat; 40 cm for faba bean.
- **Grain prices** per kg (Et Birr): 6 barley; 12 Faba bean; and 8 wheat.
- **Cost** 50 kg of fertilizer costs (Et Birr): 700 urea and 850 DAP.
- Fertilizer rate ≥ 25 kg/ha. Broadcast width 2m

Level 1 financial ability.

- Wheat: broadcast 52 kg/ha DAP, 5 m per 2 cm bottle at planting.
- Barley: no input
- Faba Bean: band apply 54.6 kg/ha DAP, 3.5 m per CAP, at planting.

Level 2 financial ability.

- Wheat: broadcast 81 kg/ha DAP, 3.2 m per 2 cm bottle at planting; broadcast 77 kg/ha urea, 2 m per 2 cm bottle at panicle initiation
- Barley: broadcast 64 kg/ha DAP, 4 m per 2 cm bottle at planting.
- Faba Bean: band apply 87.1 kg/ha DAP, 2.1 m per CAP at planting.

Level 3 financial ability (maximize profit per acre).

- Wheat: broadcast 100 kg/ha DAP, 2.7 m per 2 cm bottle at planting; topdress 111 kg/ha urea, 1.5 m per 2 cm bottle at panicle initiation.
- Barley: broadcast 92 kg/ha DAP, 2.9 m per 2 cm bottle at planting and topdress 61 kg/ha urea, 2.5 m per 2 cm bottle at panicle initiation.
- Faba Bean: band apply 110 kg/ha DAP, 1.7 m per CAP at planting.