



AEZ: Tepid to cold humid mid highland Elevation 2000- 2700m



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: 75 cm for maize; 20 cm for wheat and barley; 40 cm for faba bean; and teff is broadcast.
- **Grain prices** per kg (Et Birr): 4 maize; 6 Barley; 12 Faba bean; and 8 Wheat.
- **Cost** 50 kg of fertilize costs (Et Birr): 700 urea; 750 TSP; 850 DAP and 1500 KCl.
- Fertilizer rate > 25 kg/ha. Broadcast width 2m
- Level 1 financial ability need BC >4; Level BC 2-4; Level BC 0.1-2.

Level 1 financial ability.

- Maize HP: point apply 51.1 kg/ha DAP (1.9 plants per CAP).
- Maize LP: point apply 41 kg/ha urea after 3 weeks of planting (1.9 plants per CAP)
- Wheat HP: 56.8 kg DAP broadcast at planting (4.5 m per 2-cm bottle) and top-dress 34.3 kg/ha urea (4.5 m per 2-cm bottle).
- Wheat LP: no input
- Barley: no input
- Faba Bean: 38.1 kg/ha DAP band apply at planting (4.8 m per CAP).

Level 2 financial ability.

- Maize HP: point apply 71 kg/ha DAP (1.3 plants per CAP) and 53 kg/ha urea topdress (1.1 plants per CAP).
- Maize LP: point apply 81 kg/ha urea (0.7 plants per CAP) after 3 weeks of planting
- Wheat HP: broadcast 81.7 kg/ha DAP at planting (3.2 m per 2-cm bottle) and top-dress 50 kg/ha urea (3.1 m per 2-cm bottle).
- Wheat LP: broadcast 53 kg/ha DAP at planting 4 m per 2-cm bottle and topdress 51 kg/ha urea (3.1 m per 2-cm bottle).
- Barley: broadcast 27.2 kg/ha DAP at planting (11.4 m per 2-cm bottle)
- Faba Bean: band apply 71.5 kg/ha DAP (2.6 m per CAP) at planting.

Level 3 financial ability (maximize profit per acre).

- Maize HP: point apply 83 kg/ha DAP (1 plants per CAP) at planting; and topdress 73 kg/ha urea (0.8 plants per CAP) after 3 weeks of planting.
- Maize LP: point apply 86 kg/ha DAP (1 plants per CAP) at planting; and topdress 71 kg/ha urea (0.8 plants per CAP) after 3 weeks of planting.
- Wheat HP: broadcast 97.4 kg DAP (2.7 m per 2-cm bottle) at planting and top-dress 59.3kg/ha urea (2.6 m per 2-cm bottle).
- Wheat LP: broadcast 83.5 kg/ha DAP 3 m per 2-cm bottle at planting and topdress 80.5 kg/ha urea (2 m per 2-cm bottle).
- Barley: 48.6 kg/ha DAP broadcast at planting (6 m per 2-cm bottle)
- Faba Bean: 93.8 kg/ha DAP band apply at planting (2.0 m per CAP).

AEZ Tepid to cold humid mid high lands Elevation 1700-2200m

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: 75 cm for maize, 70cm for sorghum, 20 cm for barley; 40 cm for faba bean; and teff is broadcast.
- **Grain prices** per kg (Et Birr): 4 maize; 5.5 sorghum, 6 Barley; 12 Faba bean; and 12 teff.
- **Cost** 50 kg of fertilizer costs (Et Birr): 700 urea; 750 TSP; 850 DAP and 1500 KCl.
- Fertilizer rate ≥ 25 kg/ha. Broadcast width 2m

Level 1 financial ability.

- Maize HP: point apply 48.6 kg/ha DAP, 3 plants per CAP) at planting
- Maize LP: point apply 34 kg/ha urea, 3.3 plants per CAP) after 3 weeks of planting
- Tef: broadcast 30 kg DAP, 8.4 m per 2-cm bottle at planting and topdress 42.4 kg/ha urea (2.6 m per 2-cm bottle).
- Sorghum: point apply 36.5 kg/ha DAP, 5.6 plants per CAP) at planting
- Barley: no input
- Faba Bean: band apply 53.6 kg/ha DAP, 24 m per 2-cm bottle at planting.

Level 2 financial ability.

- Maize HP: point apply 69.4 kg/ha DAP, 2.1 plants per CAP) at planting .and topdress 51 kg/ha urea, 1.8 plants per CAP) after 4 weeks of planting.
- Maize LP: point apply 67.5kg/ha DAP, 3.2 plants per CAP) at planting and topdress 51.7 kg/ha urea, 2.4 plants per CAP) after 3 weeks of planting.
- Tef: broadcast 65.2 kg/ha DAP, 4 m per 2-cm bottle at planting and top-dress 64.7 kg/ha urea, (2.4 m 2-cm per bottle).
- Sorghum: point apply 65.7 kg/ha DAP, 3 plants per CAP) at planting.
- Barley: broadcast 25kg/ha DAP, 8.1 m per 2-cm bottle at planting.
- Faba bean: band apply 73.4 kg/ha DAP at planting (18 m per 2-cm bottle).

Level 3 financial ability (maximize profit per acre).

- Maize HP: point apply 84 kg/ha DAP, (1.8 plants per CAP) at planting and topdress 74.4 kg/ha urea (1.2 plants per CAP) after 3 weeks of planting.
- Maize LP: point apply 110.3 kg/ha DAP (1.4 plants per CAP) at planting and topdress 64 kg/ha urea (1.5 plants per CAP) after 3 weeks of planting.
- Tef, broadcast 90 kg/ha DAP (2.8 m per 2-cm bottle) at planting and top-dress 80 kg/ha urea (2 m per 2-cm bottle).
- Sorghum, point apply 82 kg/ha DAP, 2.5 plants per CAP) at planting and topdress 42kg/ha urea, after 4 weeks (3 plants per CAP).
- Barley: broadcast 50.5kg/ha DAP (5 m per 2-cm bottle) at planting and topdress 46 kg/ha urea (3.3 m per 2-cm bottle) after four weeks.
- Faba Bean: apply in band 95 kg/ha DAP (14 m per 2-cm bottle) at planting.