Top 10 for High Yielding Alfalfa

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1. Select the best genetics – consider the following:
- Yield potential
- Disease resistance
- Intended use (i.e. haylage, hay, grazing)
- Forage quality needs (i.e. dairy, beef, commercial)

2. Establish stands – stand establishment can be improved by:
- Seedbed preparation (firm seedbed is critical)
- Seeding depth (about 3/8" is ideal)
- Seeding date
- Equipment used
- Ideal seeding rate

3. Evaluating established stands – stands should be rotated when:
- Dig and rate roots on scale of 1-5 (1 good, 5 bad). Rotate stand when average score is 3 (roots starts to show internal decay)
- 40-50 stems/ft^2
- Root rating of 2 or better
- Nitrogen credit to following crop (80-120 units)

4. Fertilize based on soil test – goals for soil pH & soil fertility:
- Soil pH = 6.8-7.2
- Potassium (potash or K) = 300 lb or 150 ppm
- Phosphorous (P) = 50 lb or 25 ppm
- Apply 20-30 lbs sulfate sulfur each year using plant tissue test
- Apply 1-2 lb boron (B) each year using plant tissue test to verify need (may apply with top-dress P or K)
- Use Max-In Alfalfa as supplement (may apply with insecticide)

5. Control insects – consider these insect thresholds:
- Potato leafhopper (0.2 per sweep in 1-2 inch alfalfa)
- Alfalfa weevil (30-40% of plants show any feeding)
- Alfalfa (tarnished) plant bugs (shriveled leaves)
- Aphids – spotted, blue, pea, cowpea aphid
- Additive effect of insects on environmentally stressed crops

6. Control weeds
- Manage plant loss during establishment
- Established stands – yield and forage quality influence

7. Manage water
- Irrigate (alfalfa requires 300-400 lbs of water/1 lb DM)
- Drainage (provide surface and internal soil drainage)

8. Minimize wheel traffic & soil compaction
- Reduce wheel loads (30-50% yield loss in tracks)
- Minimize trips across field using wider equipment

9. Cutting management – consider the following for yield & quality:
- Cut at 24-26" (about 400 heat units first crop)
- Verify first crop readiness with scissor clip or PEAQ stick
- Cut every 28-35 days
- 4 + 1 cuts/yr (fall cut when less than 500 heat units)

10. Manage harvest & storage losses
- Use wide windrows (achieve 50% moisture as fast as possible)
- Save the leaves; 400 RFV all the time
- Condition stems (60-70 RFV at flower, declines with age)
- Use a forage inoculant for silage and a mold inhibitor (preservative) for dry hay