

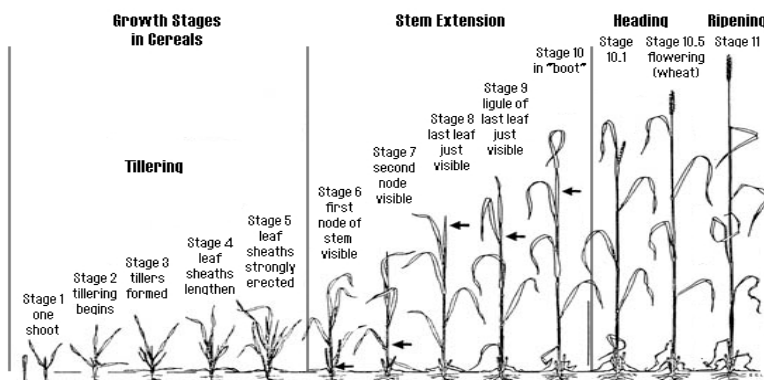


# Wheat – Key Issues

## Key steps to increasing wheat production and profits in Afghanistan.

Practice	Primary Issue(s)	Present Practice	Improved Practice	Comment
Plowing	Poor seedbed as soil too wet to plow	Plow after last spring rain and before fall rain	Avoid plowing when soil too wet	Plow at correct moisture to improve seedbed and reduce soil compaction. May need to drain previous crop earlier.
Plowing method	Insufficient tillage depth and poor seedbed	Use animals	Use tractors if available	Tractors are quicker and more uniform, but using tractors can be difficult in small fields
Land leveling	Waterlogging during Irrigation	By animals	Animals or tractor with suitable leveling equipment	Low spots lead to waterlogging and yield loss.
Seed quality	Low germination and poor vigor due to poor seed and poor seed storage	Keep own seed	Get improved seed and/or store saved seed better	Use pure, weed-free seeds, with UG99 resistance and high (>85%) germination
Planting date	Generally okay		Match variety with planting date and climate	Increase farmers knowledge about variety maturity length, planting date and late frosts
Planting method	Poor seed and seedbed quality	Broadcast	Improve seed and seedbed quality	Planting in row can reduce seed rate but usually requires special equipment
Soil fertility	Fertilizer timing and rate (too much and too little)	Animal manure and inorganic fertilizer	Apply most N before node at 1 cm	Yield potential is set by node at 1 cm Rules of thumb: Need to apply about 40 Kg N per ton yield
Diseases & Insects	Moroccan locust Maybe Barley yellow dwarf virus (BYDV)?	Using pesticide or insecticide	Improve knowledge of and access to suitable pesticides	Aphids spread BYDV <b>Note:</b> Need to confirm if BYDV is an issue
Water on farm	Land leveling Too much and too little water	Flood irrigation	Furrow irrigation Improved leveling Improved scheduling	Farmers apply both too much and too little water and uneven fields lead to Irrigation problems
Water delivery systems	Water losses and farm access to system	Canals and ditches	Improve (seal) canals	
Storage	Poor seed quality, grain rotting	In house open storage	Better moisture control, hermetic storage	Stored dry grain using Hermetic storage (sealed air tight containers) to maintain good seed quality

**Note:** Most improved practices will require demonstrations and farmer education



**Most nitrogen should be added before stage 6 (first node visible)**

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