

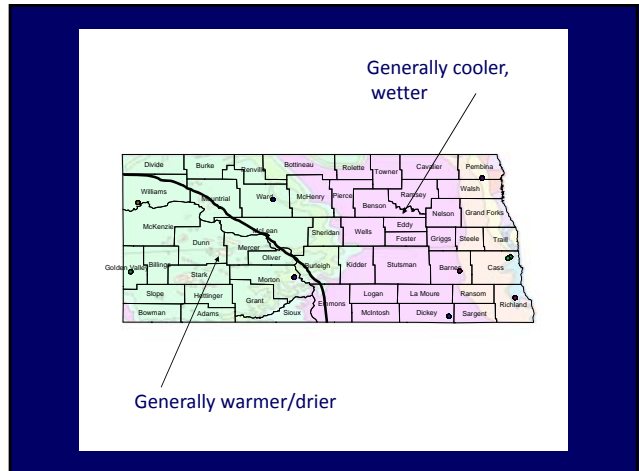
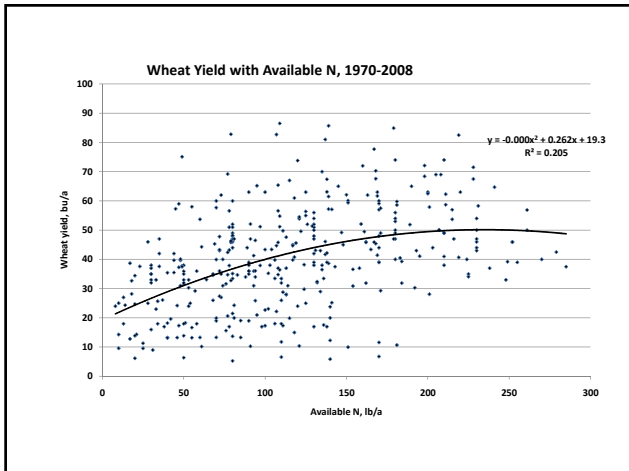
Fertility Considerations

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Barley fertility considerations are interwoven with other factors that influence yield.

As yield increases, protein decreases.
As yield decreases due to environmental factors, protein increases.

Anticipating environment is a problem in the west and forces growers to manage N conservatively.



Recommendation for the east and north

$N_{rec} = YG \times 1.5$ less STN-PCC

Recommendation for the west

$N_{rec} = YG \times 1.2$ less STN-PCC

Good agronomic placement of N is important.

Charts are available that show limits of N with the seed.

Preplant N or N applied at seeding is important. Post-applied N is a train-wreck that is waiting to happen.

Make plans to place urea/28% below the soil surface for greatest efficiency.

Urea on top of the soil can be lost.

Agrotain is the only product that can keep urea stable for about 10 days. It is usually impregnated onto the urea at the fertilizer blender.

Early planting is also very important to maximize yields and avoid hot, dry conditions that limit kernel size.

**Banded vs Broadcast P in Barley,
Bailey, MB**

Rate of P ₂ O ₅ , lb/a	Broadcast	Banded 1X1
	Yield, bu/a	
0	30	30
18	30	43
27	31	56
36	36	70
55	48	81
110	57	81

Chloride has been shown to increase yields slightly in barley (2-4 bu/a) when soil test is low (below 30 lb/a 2-ft).

Chloride increases plump (Zubriski et al., 1970) and so would help to keep protein levels lower.

10-15 lb/a chloride (about 20-30 lb/a 0-0-60) would make up most of the difference.

- Use a conservative N rate
- Apply N in a good agronomic method
- Band P
- Use chloride if soil test is low
- Plant early
- Use proper plant population