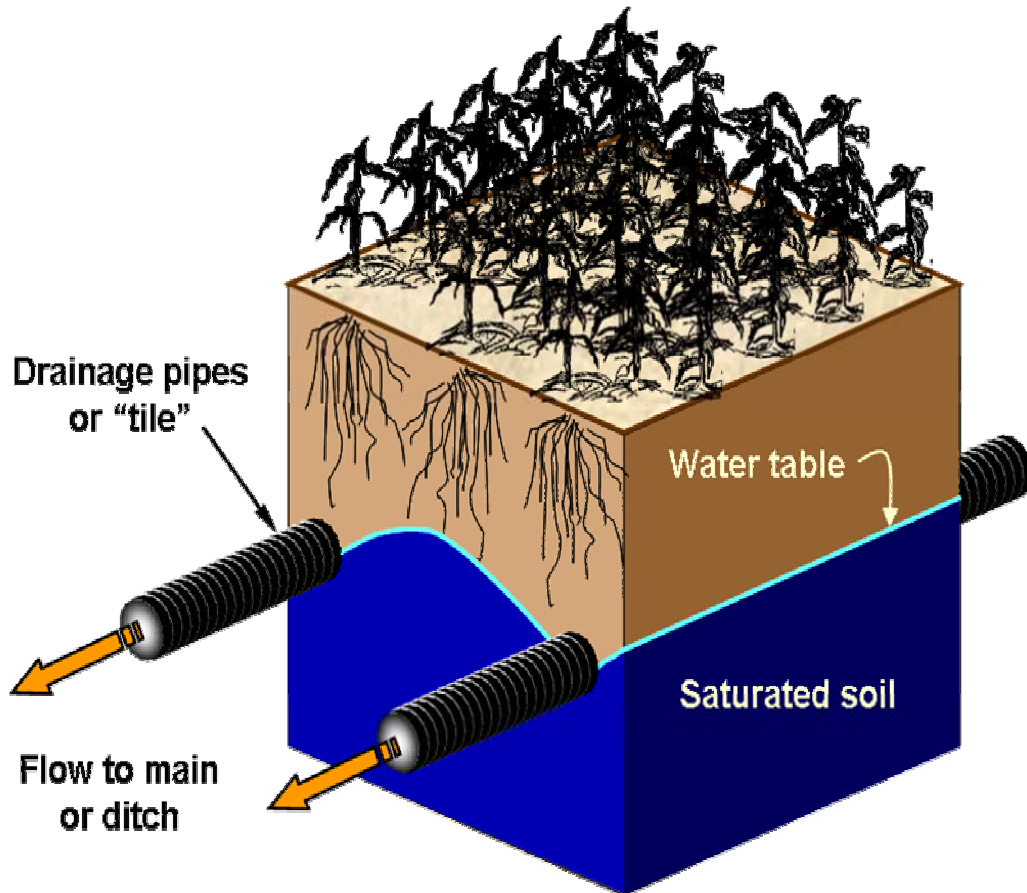


Tile Drainage Systems Planning Considerations



Why Tile ?

- ✓ Trafficability and field access
- ✓ Crop protection against risk
- ✓ Optimum crop growth
- ✓ Alternate crops
- ✓ Soil structure
- ✓ Salinity

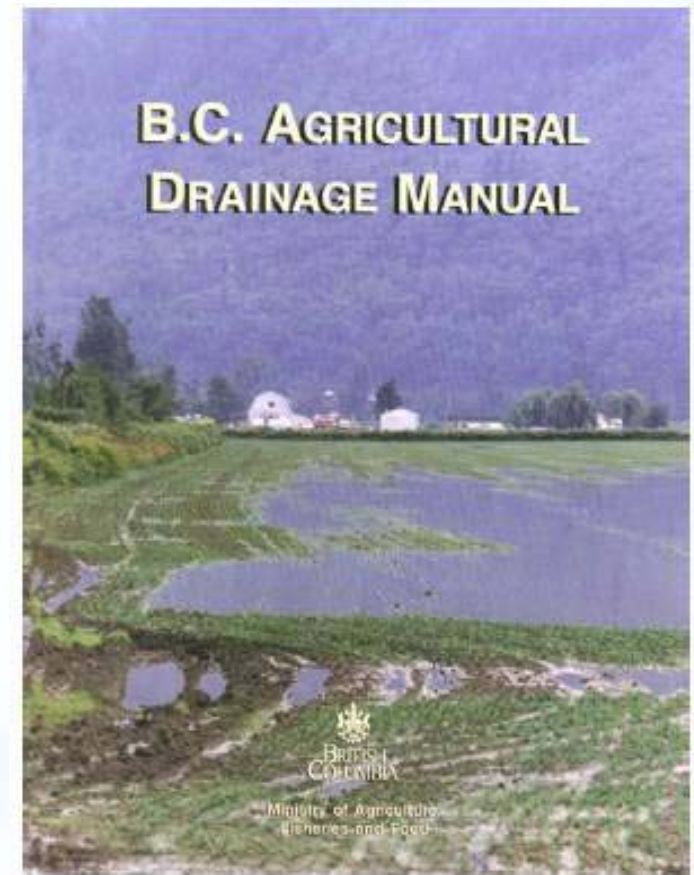
- ✗ Tillage & cropping options
- ✗ Surface vs. sub surface
- ✗ Very high risk events
(e.g. 1997 Flood of the Century)

What you should know ?

- ✓ Design concepts and options (Sands, Copithorn)
 - ✓ Manitoba soils properties (Cavers, Axys)
 - ✓ Weather risks (Nadler)
 - ✓ Performance (Shewfelt, Sager)
-
- ✓ Cost (Installers)
 - ✓ Benefits (Farmers, Kandel)
 - ✓ Environmental impacts (Harland, Shewfelt, Sands)

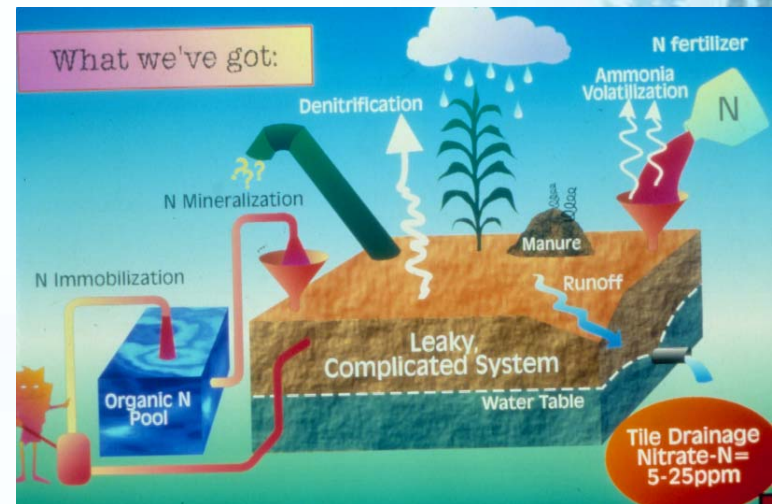
Design References

- ASAE EP 302.2 – Design and construction subsurface (AP480) drainage systems on farms in humid areas
- BC Agricultural Drainage Manual
 -www.afg.gov.bc.ca/res/mgmt/publist/50series/525500-1.pdf.....
- OMAFRA manuals



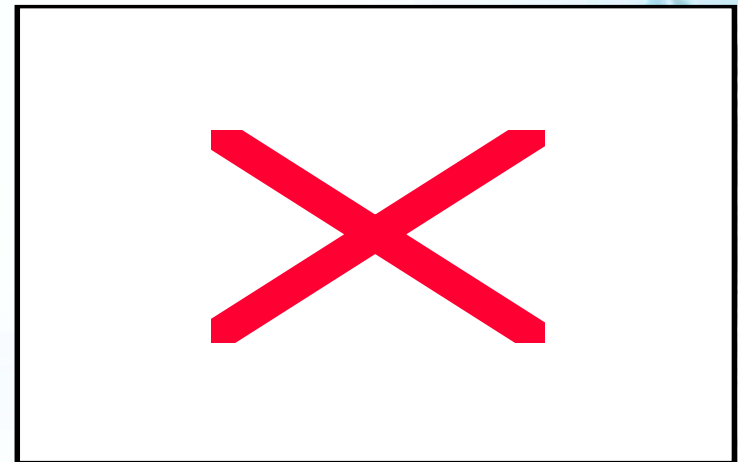
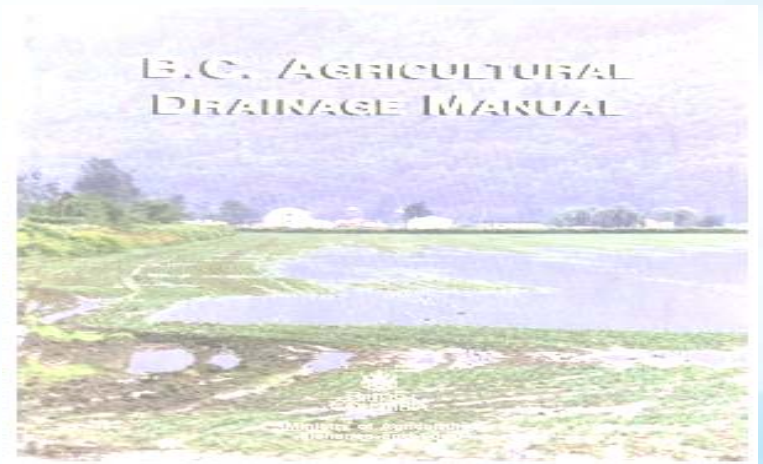
Why advanced Options !

- **Off farm movement of**
 - Coliform
 - Nitrates
- **Economics for you !**
 - Better utilization of water and nutrients
 - Higher yields and return on drainage investment !



Other Things to Discuss !

- Regulatory Issues
- Farmer experience
- Supplier recommendations
- Contractor experience and recommendations



Outcomes – What you should leave with!

- Knowledge
- Basis for decisions
- Awareness of options and impacts
- Position to ask the right questions and get value for your investment





QUESTIONS ?