

# Agriculture and Water

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Water Management Specialist



# Agriculture and Water

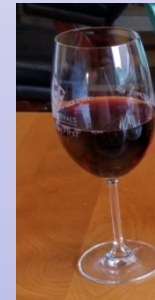
- Livestock



- Crops



- Processing



# Irrigation Duty

## ➤ Irrigation duty is determined by:

➤ Climate

➤ Length of season

➤ Rainfall

➤ Moisture deficit



### WATER ACT

#### CONDITIONAL WATER LICENCE

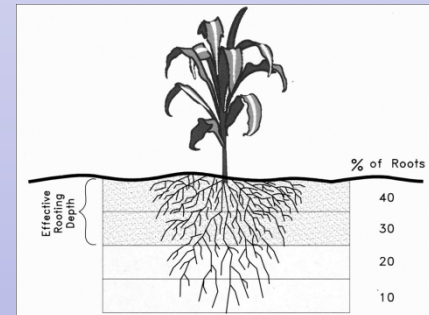
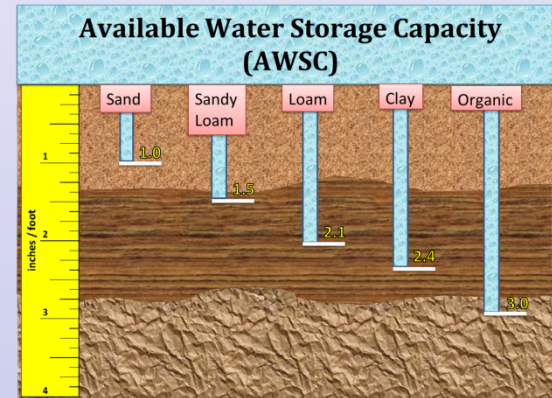
The owners of the land to which this licence is appurtenant are hereby authorized to divert and use water as follows:

- (a) The source on which the rights are granted is the Thompson River.
- (b) The point of diversion is located as shown on the attached plan.
- (c) The date from which this licence shall have precedence is February 20, 1978.
- (d) The purposes for which this licence is issued are domestic and irrigation.
- (e) The maximum quantity of water which may be diverted is 500 gallons per day for domestic purpose and 5.7 acre feet per annum for irrigation purpose.
- (f) The period of the year during which the water may be used is the whole year for domestic purpose and April 1<sup>st</sup> to September 30<sup>th</sup> for irrigation purpose.
- (g) The land upon which the water is to be used and to which this licence is appurtenant is Lot B Section 33 Township 20 Range 24 West of the 6<sup>th</sup> Meridian Kamloops Division Yale District Plan KAP66395, of which 1.9 acres may be irrigated.
- (h) The authorized works are a diversion structure, pump, pipe, and sprinkler system which shall be located approximately as shown on the attached plan.
- (i) The construction of the said works has been completed and the water is being used. The licensee shall continue to make regular beneficial use of the water in the manner authorized herein.
- (j) This licence is issued pursuant to the provisions of the *Water Act* to ensure compliance with that statute, which makes it an offence to divert or use water from a stream in British Columbia without proper authorization. It is the responsibility of the licensee to ensure that all activities conducted under this authorization are carried out with regard to the rights of third parties, and comply with other applicable legislation that may be in force.
- (k) This licence authorizes the use of water for domestic purpose in one dwelling located approximately as shown on the attached plan.
- (l) This licence is issued in substitution of Conditional Water Licence 114341, in part.



# Irrigation

- Replenish soil moisture
- Soil type
- Crop rooting depth





Wind

# Evapotranspiration

Solar Radiation



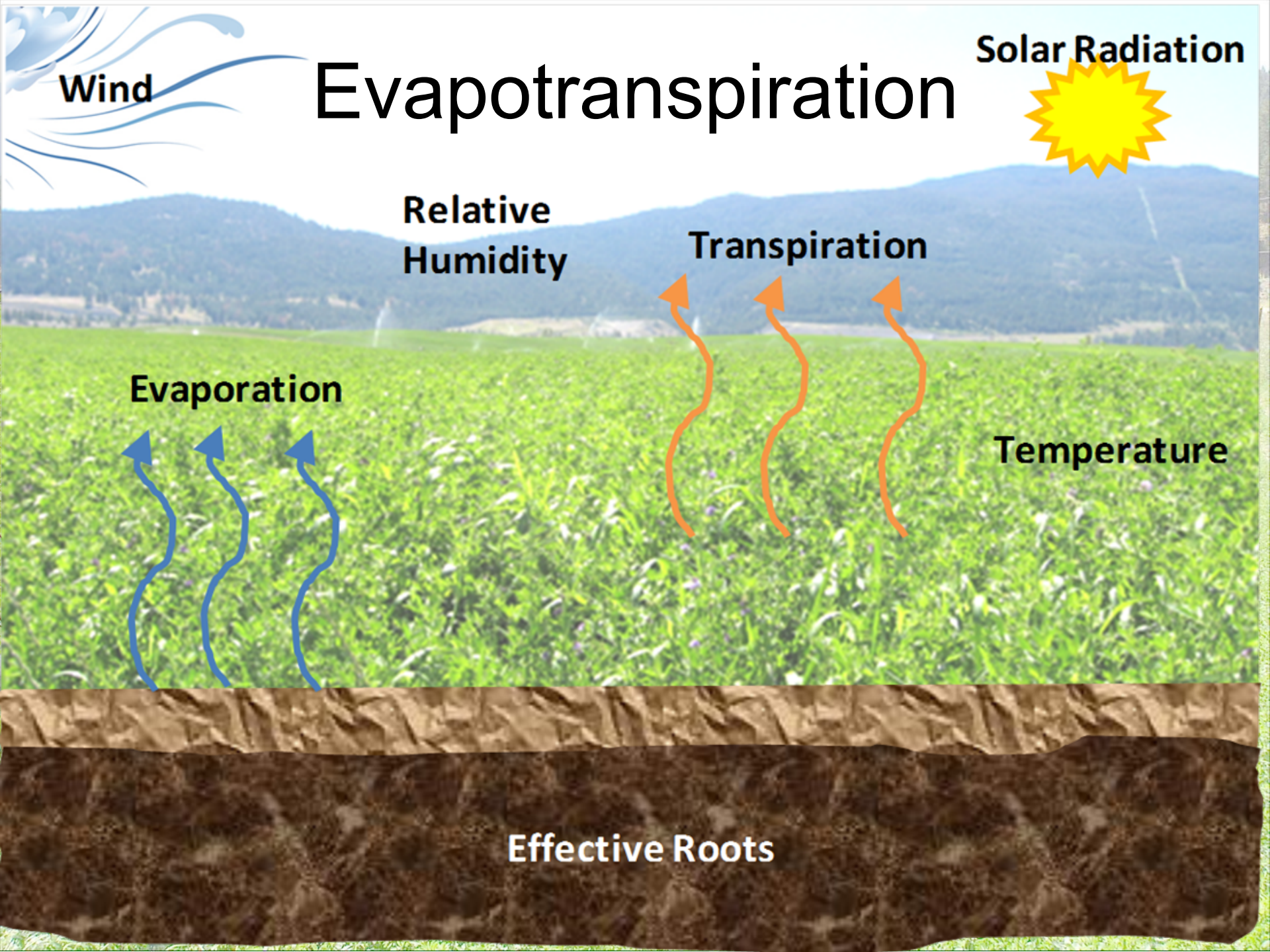
Relative  
Humidity

Transpiration

Evaporation

Temperature

Effective Roots





# Irrigation Systems

- Application Efficiency

50%

72%

90 %

- Flood

- Sprinkler

- Drip



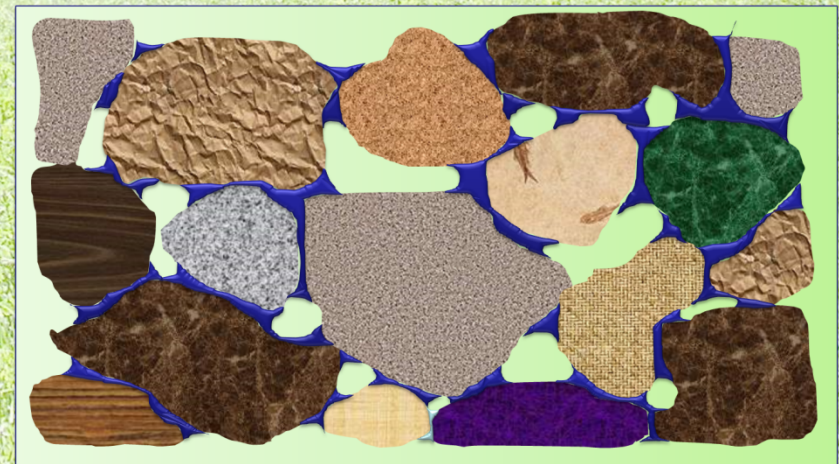
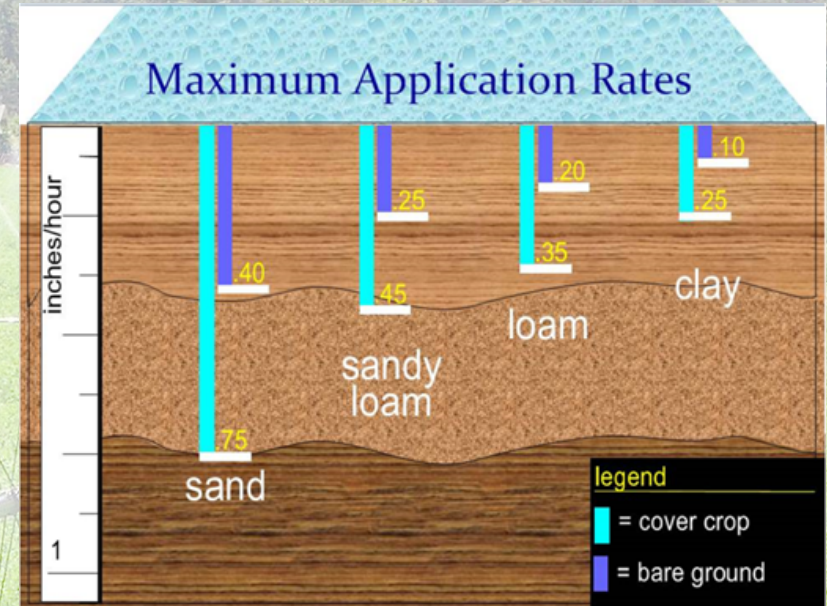
- Leak prevention





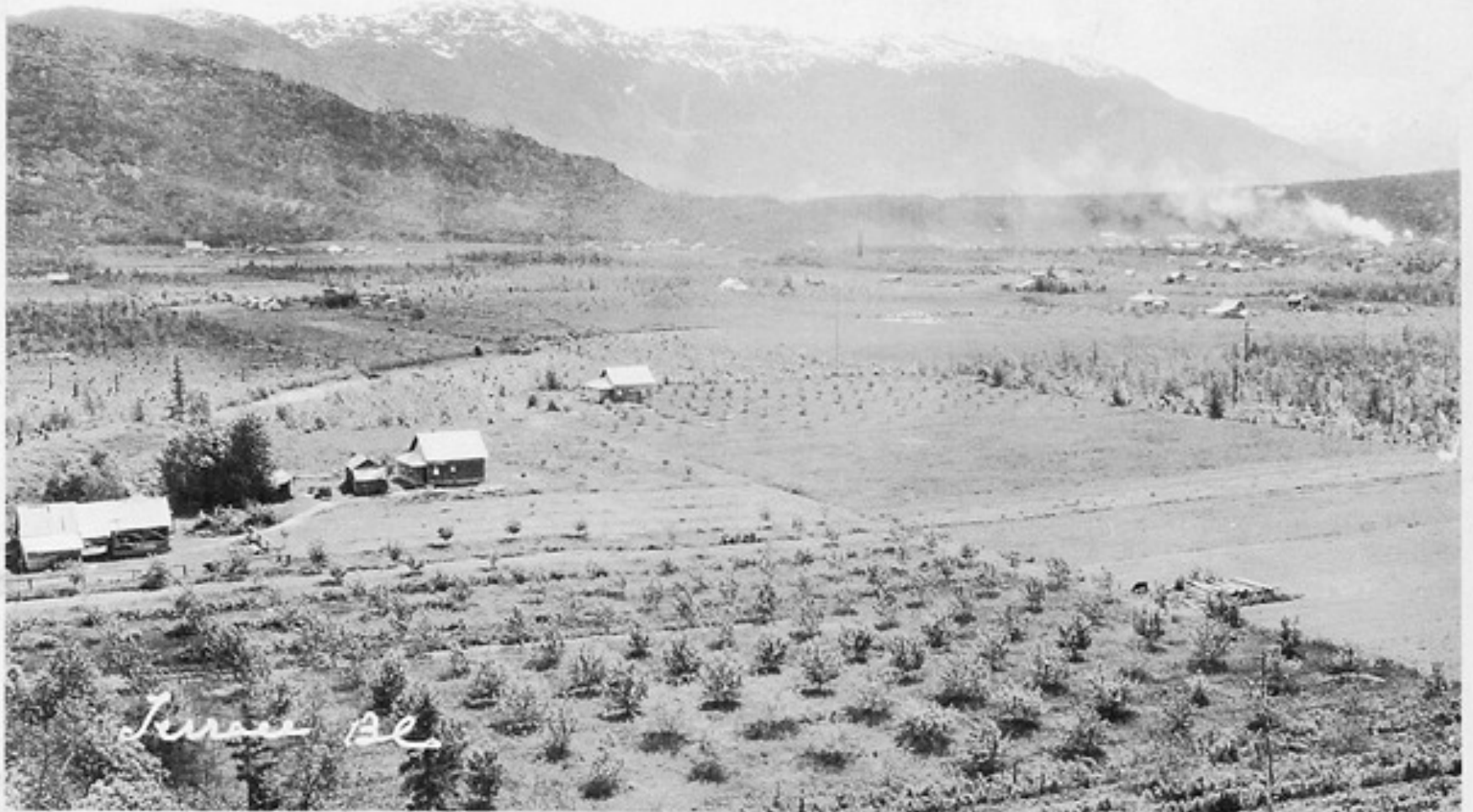
# Efficient Irrigation

- Application Rate  
    < Infiltration Rate
- Depth applied  
    < Storage Capacity
- Annual applied  
    < Licenced Duty





# Questions



*Turkey Bl.*

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