

# Strategies for managing frost

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# Impacts on vines

- Delayed regrowth
- Loss of crop
- Mixed maturity
  - Only a portion of the field affected
  - Only a portion of the vine affected
- Reduced carbohydrate storage
  - Hardiness in winter
  - Growth the following season

# Passive vs active measures

- Passive
  - Done well before frost event
  - Creating an environment of warmer temperatures
- Active
  - Actions immediately before/during frost

# Passive frost protection

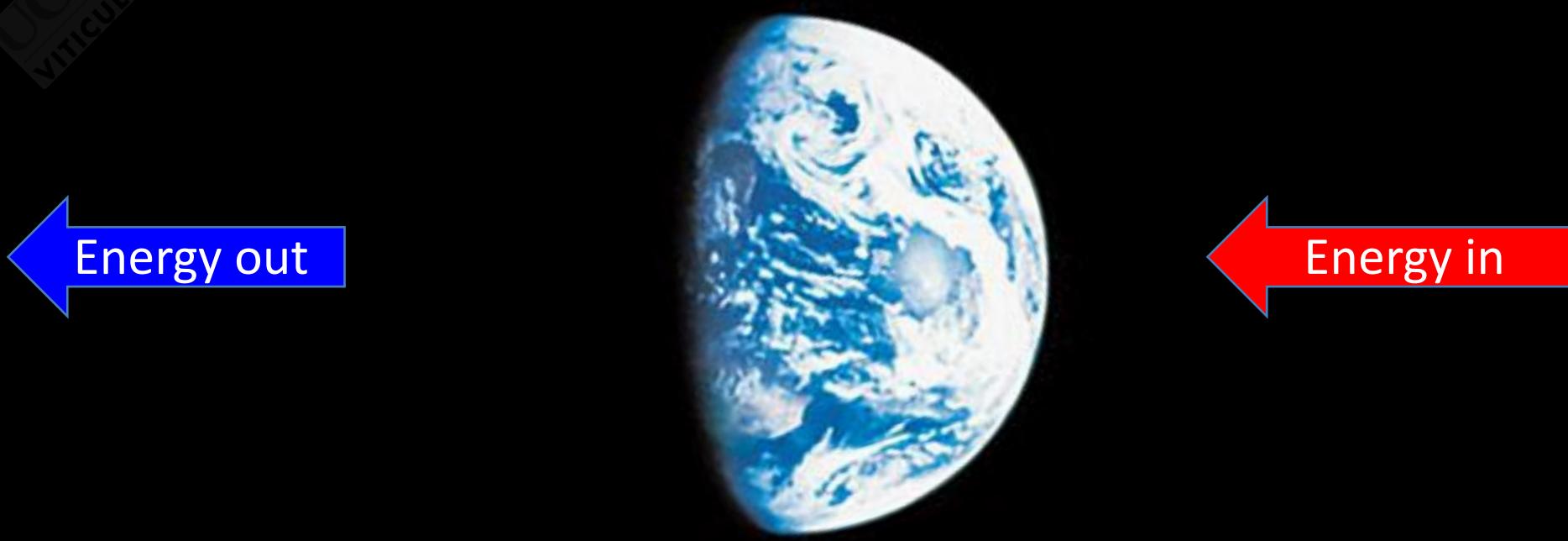
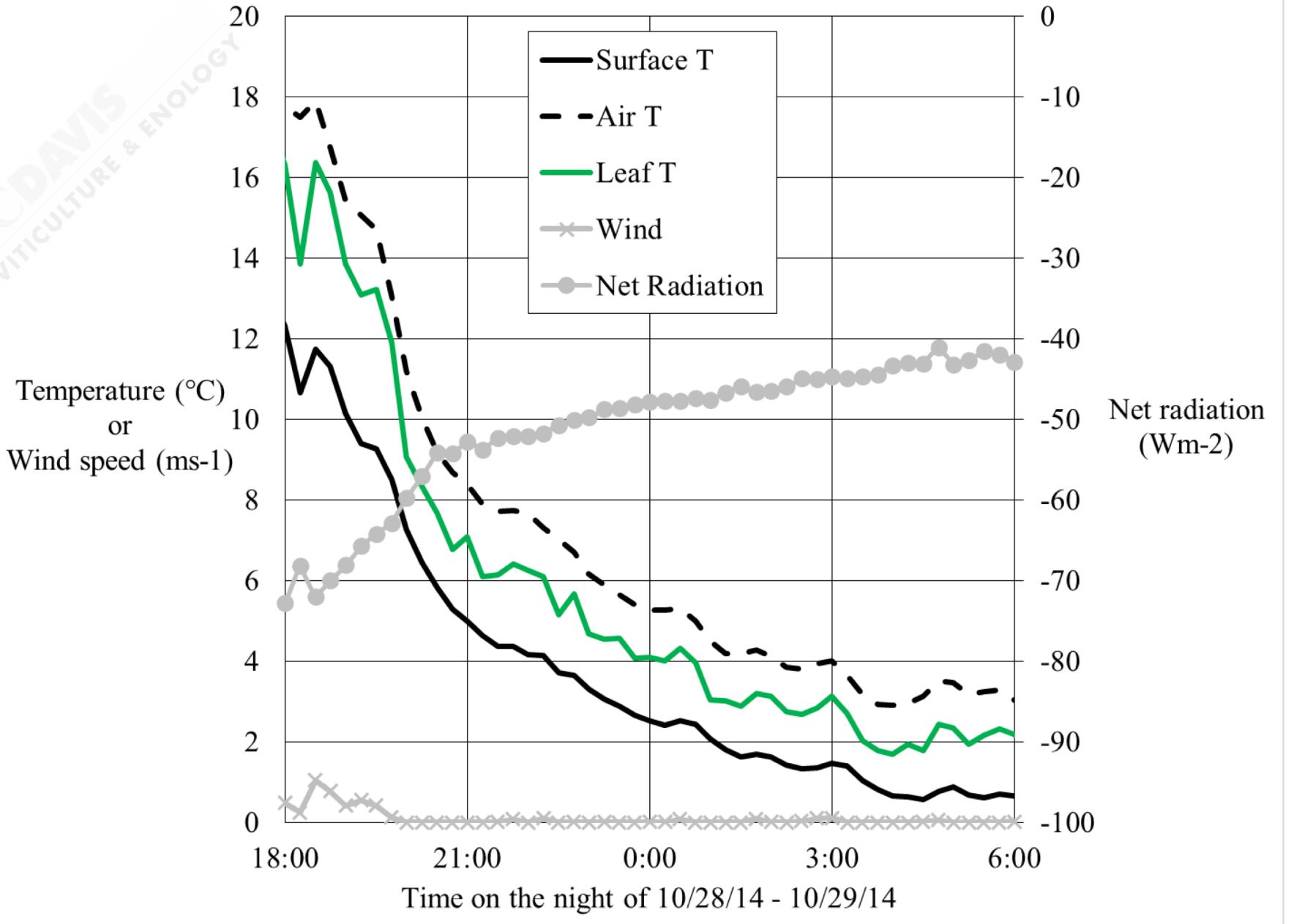


Image credit: NASA



# Surfaces exposed to nighttime sky



# Drainage of cold, dense air



# Site selection to avoid cold areas



# Planting in frost pocket



# Enhancing drainage of cold air



# Barriers to air drainage





Dense, tall cover;  
Coldest possible conditions

Optimum warmth:  
- Bare, moist, firm soil



# A common compromise





































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