

Temperature inversion essay sample



**ASSIGN
BUSTER**

1. Is a temperature inversion more likely to form on a calm or a windy night? Why? 2. What are the various methods used to protect sensitive crops from damaging low temperatures? Explain why each method works. 3. Would a strong radiation inversion be more likely to form on a winter night or a summer night? Explain your answer. 4. Explain why the dew point temperature provides a better indication of the actual amount of water vapor in the air than the relative humidity. 5. List one or more key identifying features for each of the ten basic cloud types. Which cloud types might have fairly similar appearances and thus be difficult to identify? 1. A temperature inversion will most likely form a calm night due to the sun setting and letting the lower atmosphere cool down. With all that hot air higher it pushes all the wind up making it calm on the ground. 2. Thermal belts, Orchards heaters, Wind machines and flooding/sprinklers are ways to preserve crops during low temperatures. Thermal belts are simply just hill with higher temperatures than the valley farmers plant on. Orchard heaters are what they sound, pots the burn fuel to radiate heat up through the air making it warm.

Wind machines mix the higher warmer air with the lower cold air making the trees less likely to freeze. Flooding is used because water takes a lot longer to cool than dry soil does because water hold heat better and releases it in the air. 3. A strong radiation inversion will be on a winter night opposed to a summer night. This is because winter night are less likely to be windy so the cool air and the warm air will not mix. Long nights also contribute to this being it gives more time for the ground to cool down. 4. Dew point temperatures provides a good indication for water vapor because temperatures decided the how much water vapor is actually in the air. For

example, Low Temperature= low vapor, and vice versa. (Ahrens, 2014) 5.

Cirrus-Thin and wispy Cirrostratus- high, thin and usually cover the entire sky

Cirrocumulus-small round white puffs Stratus-A higher fog looking cloud.

Stratocumulus- low lumpy clouds Nimbostratus-Rain or snow clouds

Altostratus-gray/blue clouds that cover the entire sky Altocumulus-gray puffy

masses Cumulus- Floating cotton Cumulonimbus- looks like a-defined anvil.

Cumulus Congests clouds and Cumulonimbus clouds are often mistaken

because both look like big cotton balls producing storms.

References:

Ahrens, C. Donald. Essentials of Meteorology: An Invitation to the Atmosphere, 7th Edition. Cengage Learning, 2014. VitalBook file.