

CONSEQUENCES OF WEATHER

Iowa State Climatologists Dr. Elwynn Taylor spoke to club members and guests about his interpretations of weather trends around the world that affect our daily activities. Taylor noted that there is always something notable happening on earth due to the weather as it is a dynamic interaction of solar energy, wind circulation, and ground surface conditions. Soybean rust is becoming more of a concern in the Midwest. The spores are moved by wind circulation patterns and it has spread from South America to the southern coastal states of the U.S. There is concern that it will spread to Texas and then to the Midwest through prevailing wind patterns. The invasive plant Kudzu is a host for the disease. Soybean rust originated in China, but they grow soybeans in a drier climate there than we do in the U.S., Taylor explained. Taylor stated there is a 30% chance that soybean rust is coming to this area and a 50% chance of infection.

Our world contains a great amount of water that has a major influence on weather patterns Taylor explained. The heat change in the upper four inches of water can influence the air temperature fifty miles above, and deeper water has a longer lasting influence on air temperature. Taylor stated the Pacific Ocean temperature north of Hawaii and east of Peru and the Mid-Atlantic and Gulf of Mexico temperatures affect the seasonal weather of the U.S. The status of the Pacific waters has more influence on western Iowa, Taylor noted. The ocean water temperatures oscillate over multi-year cycles to result in wet and drought cycles on land. Taylor noted that we are in a trend towards more droughty conditions that could go for many years before there is a reversal. The current ocean observations suggest a 60% chance of drought in the corn belt this season, so Taylor is estimating a below average crop yield.

Taylor expects increasing hurricane activity consistent with the historic 33-yr trend. Hurricanes are expected to occur more in the western gulf areas of Louisiana, Texas and northern Mexico over the next several years before this trend reverses.

The world-wide concern of avian influenza or bird flu is spreading from eastern Asia and Indonesia. According to Taylor 20% of the chickens there have been destroyed to control bird flu. (That could result in a lower demand of feed grains for chicken feed there). But, it is the wild bird population that is of more concern, since they can spread the bird flu. It has been found in Africa, France, and North Alaska and may show up in our region through migrating birds this fall. Taylor noted every mammal can be infected. It is often fatal for cats. We can potentially get it from pigs.

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