

## **The Power of the Wind**

### **AGRI-VIEWS**

by Chuck Otte, Geary County Extension Agent

Last Sunday, just about sunset, the cold front blew through and rattled homes, sent leaves and dust flying as well as anything else that wasn't fastened down. The truth of the matter is, that this isn't uncommon. This is the Great Plains, folks, the wind blows here: regularly and occasionally quite hard. The wind is one of the most dominant factors of our weather and homeowners, gardeners and farmers must learn to accept it and deal with it because you aren't going to stop it.

We don't notice the wind so much with modern houses that are well sealed up. Modern home construction is pretty air tight. But our parents, grandparents and great grandparents weren't so lucky. Their homes were a little bit draftier and when the wind howled, the house got drafty. They learned that planting windbreaks on the north and west sides of their houses really slowed down the wind, protected them from blizzards and helped keep their homes warmer in the winter. Even though we may not notice it as much inside our modern homes, windbreaks still reduce energy costs!

Ranchers know that when a winter storm is howling in, cattle will instinctively move to areas sheltered from the wind. By utilizing this instinct and providing windbreaks for livestock they can keep cattle healthier with less feed. Every 1 degree drop in wind chill requires 1% more energy for the cattle to keep warm. Giving the cattle a place to get out the wind can cut feed requirements by 30 to 40% compared to cattle out in the open.

For many of us, the most obvious impact on the wind is on the trees and plants we try to grow in our yards and gardens. Trees exposed to the full force of the prevailing southwest summer winds will tend to grow away from that wind. Branches on the southwest side of the tree will be shorter than those on the northeast side of the tree. Trees often bend towards the north as they grow. Homeowners will try to pull the tree back with guy wires, ropes and stakes. Ultimately, this simply won't help and the best thing to do is to let the tree grow with this wonderful characteristic.

As wind blows across the leaves of plants, it increases the amount of water that the leaf and the plants loses from transpiration. When it's calm, these leaves build up a micro layer of humidity that helps regulate water transpiration. The wind blows this micro layer away so more water is lost out of the leaf. In warm and windy weather, a plant can lose more water through it's leaves than it is capable of moving from the soil and roots up to the leaves. The leaves dry out and can start to die from the edge inward, a situation we call scorch. Trees like maples are more prone to this than oaks.

It becomes very critical to recognize that different parts of our yards need different plants. A heat sensitive plant like boxwood will do better on the damper and cooler north and east sides of the house compared to the sunny, windy and hot southwest side of the house. Whether you are planting flowers, perennials, a vegetable garden or trees, you need to know the microclimates around your house and what plants will work best in each of those locations.

The wind in Kansas isn't going to go away. Calm days are going to be few and far between. The wind can cause us a lot of problems, and at times it can be a blessing. So don't fight it, just accept it, acknowledge it and learn to work with it in your yards and gardens!