

## **The Cold Wintery Weather Is Beneficial, Isn't It?**

AGRI-VIEWS

by Chuck Otte, Geary County Extension Agent

We need winter. We depend on winter. We need the natural cycles, including cold weather for many reasons. It helps keep some plants from becoming weeds. It helps reduce some of the plant diseases (as well as livestock and human diseases) that we are or could be plagued with. We need it to keep certain insect populations in check. By the way, has anyone seen a mosquito lately? But many things that people think or have heard about why winter and cold weather are good, are nothing more than tales and myths from the past.

Let's start with the benefits of snow. Snow brings insulation to dormant plants including our wheat. Snow brings us moisture that often melts slowly allowing much of it to soak into the soil. However, there really isn't much nitrogen in snow. Studies have shown that the amount of actual nitrogen in snow is two to twelve pounds per acre. Obviously the less snow you get the lower amount will be in order. The closer you are to larger metro areas the more nitrogen there will be as air contaminants from fossil fuels carry nitrogen with it. But ultimately, there just isn't very much nitrogen in snow. All the benefits of snow comes from insulation and moisture.

Cold weather sets the limits of where many species of plants will grow or survive. (As do summer temperatures as well but this is an article about winter!) Some plants HAVE to have cold weather. Winter wheat is one example. Cold weather triggers the plant to switch from vegetative growth (producing leaves) to reproductive growth (producing grain). Peach trees need a certain amount of chilling to bloom and produce fruit. Most of our spring flowering bulbs need an extended cold treatment every winter so that they will produce blooms.

Any non winter hardy plant, growing in our climate, is an annual! Many of the plants we grow in our gardens and flower beds can actually survive for several years, but they can't tolerate frost. I kept some pepper plants alive for more than a decade by keeping them in pots and bringing them into my office over winter. There are also certain plants that are winter hardy that are kept in check, if you will, by the annual dormant season. Ever thought what poison ivy might do if it didn't go dormant every year? There are certain troublesome tropical weeds that we fortunately don't have to worry about because of freezing weather!

Finally, the insects! Many people think that a good hard winter with below zero temperatures will get rid of more insects. In reality, that's not the case. The insects that will overwinter, in whatever life stage they are in, aren't really going to be bothered by temperatures of ten above, zero, ten below or colder. Once they get acclimated and have gone dormant, they are pretty immune to whatever temperatures (naturally occurring in our area) happen. The insects that aren't winter adapted, are pretty well gone by the time we hit the low 20s and colder doesn't kill more!

What does happen is that with every warm spell in the winter many insects start to come out of dormancy. Then when it gets cold they go back into dormancy. Each one of these cycles uses up food reserves that they can not easily replace. The more of these cycles you have, the higher the over wintering mortality will be.

So there you have it. Yes, winter is good and we need winter. Much of our agriculture depends on winter. But many of the benefits that you thought winter provided, it may not, or at least not in the manner you had always assumed!