



Pest e-alerts



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Vol. 15, No. 22

<http://entopl.okstate.edu/pddl/pddl>

06/10/2016

Wheat Disease Update

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I thought last week was my final update, but over the last week I have received a couple reports of “dark” wheat appearing in wheat fields in Oklahoma such as the one below from near Cordell, OK (Washita County). This condition, which is known as sooty mold, results from various fungal molds growing on the dead plant matter in the wheat heads. Sooty mold typically appears when wheat that is turned cannot be cut in a timely manner. It also seems to be more prevalent where wheat received less than optimum fertility, freeze occurred, or something else resulted in less vibrant plants. Wet weather, high humidity, and late harvest then provide an ideal climate for secondary fungi to colonize the dead tissue causing the sooty appearance to the wheat. Typically the sooty mold occurs in areas of a field where moisture and/or humidity is highest. Test weight and yield can both be affected, but often the biggest problem with sooty mold is that it will result in black point of wheat kernels (photo below). With time, sooty mold fungi colonize (typically) the germ end of the wheat kernel giving the kernel a black point. Often such wheat grain has reduced viability, and use of heavily black-pointed wheat as seed wheat should be avoided. Typically there are no actions to take to prevent sooty mold/black point other than to try to harvest wheat as quickly as possible once the wheat has turned.



Figure 1: Sooty mold in wheat field. Credit: Andy Evans



Figure 2: Wheat head with sooty mold.



Figure 3: Black point of wheat kernels (bottom row of wheat kernels).

Stable Flies Abound around Beef and Horses

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As I visit beef and horse operations around the state I have noticed a typical behavior associated with stable fly feeding which is bunching into groups by beef animals and leg stomping by horses. Stable flies are serious pests of both animals and humans. Their bite is painful and causes significant amount of stress in animals. Recently, it was demonstrated that the economic impact caused by stable flies in the cow/calf sector was approximately \$285 million annually and the impact to the stocker sector was \$1.2 billion annually in the US beef industry.

Stable flies prefer to feed on the legs of animals (Fig. 1) and occasionally can be seen on the underside of animals. Most losses in cattle are seen when there are 5 or more stable flies per leg of the animal. The feeding causes an impact to production and forage efficiency. A University of Nebraska study identified a reduction in average daily gain (ADG) of 40% when stable flies were left untreated on stocker animals. Another USDA study showed that the impact of stable fly feeding to weaning weights could be as high as a 38 lbs. reduction for calves in a cow/calf based system. Most the fly breeding habitat where the stable flies are coming from are hay feeding sites that were left after



Figure 1: Stable flies feeding on the front legs of a stocker.

winter feeding. In fact, the same USDA study showed that stable flies coming from hay feeding sites demonstrated to have a 132 lbs. per body weight impact on weaning weights resulting in a \$136 value for those losses.

Stable fly management for beef operators should begin with cleaning up old hay feeding sites so that they can either dry out or be removed completely. Spraying can be impractical considering moisture such as rainfall and heavy dews can impact efficacy of the spray. Also, some animals may seek shelter from this biting fly by going into ponds to prevent the fly from feeding and this will not only impact the efficacy of the spray but could cause contamination of the pond. If the burden of this fly pest becomes high enough to impact animal performance, then spraying the legs and underside will provide temporary control.

The impact to the horse industry is less described but the overall stress caused by stable flies can result in reduced performance and potential injury. Stable flies also utilize barn walls as resting sites which can be treated with an insecticide to help in controlling this pest. An alternative to insecticides for horse owners is the use of a biological control agent known as pteromalid wasps and are sometimes called “fly predators.” These are meant to be used as a preventative control tactic and should be put out before stable flies become a problem. Cleaning up stalls or barns on a regular basis especially where manure is being mixed with hay and feed will have the greatest impact on stable fly populations.

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