

Sclerotinia-infected Sunflowers as a Feed Source for Pregnant and Non-pregnant Mature Beef Cows

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Sclerotinia-infected sunflower screenings were evaluated as an energy source in a study involving pregnant and non-pregnant cows. The mature crossbred cows ($n = 15$) were allotted to one of four treatments. The treatments consisted of pregnant cows consuming sclerotinia-infected sunflower screenings; and non-pregnant cows consuming sclerotinia-infected sunflower screenings, sclerotinia-infected sunflower screenings and durum midds, or durum midds. The sunflower screenings contained 52% sclerotia bodies on an air-dry weight basis. We observed minimal effect on performance and change in blood metabolites in this field study. Blood metabolite levels remained fairly consistent from the start to the end of the trial. All ending blood levels were either within their normal parameters or consistent between treatments. The introduction of sclerotinia infected sunflower screenings into the diet did not appear to affect dry matter intake. Numerically, there was a difference in weight gain across treatments. The non-pregnant cows fed a sunflower/midds combination gained .87 lbs. more per day than those fed exclusively sunflowers and .72 lbs. more than those fed durum midds exclusively. It is difficult to interpret the difference in weight gain at this point. The difference in weight gain might be explained by the lower digestibility in the screenings due to the density and hardness of the fungal bodies. Added study of feeding sclerotinia may be warranted. Body condition scores also varied between treatments. Non-pregnant cows fed screenings/midds and the control treatment both gained one half of a condition score. Pregnant and non-pregnant cows fed screenings had similar gains in condition score with .33 and .38 respectively, suggesting minimal effect. To date, no reproductive problems have been noted due to inclusion of the screenings in the ration. Sclerotinia-infected sunflower screenings appear to be a safe and energy-rich feedstuff, which can be readily used in cow diets to enhance profitability through lower feed costs.