

Grain Fattening Bulls Lowers Fertility –

by Allan Nation

Grain-fattened bulls may top the sale but they are worth far less for breeding purposes than bulls raised on all-forage diets, according to a Canadian study. In a study at the Lethbridge Research Centre, bulls that were grown from weaning to maturity on 100% forage diets had 13% greater efficiency of sperm production, 19% more daily sperm production and 52% greater sperm reserves.

The sperm production of the grain-fattened bulls were all extremely marginal in both total sperm production and total motility. The fatter the bull the less motile the sperm became. The forage-fed bulls had much better testicular tone, which is generally associated with improved seminal quality.

The negative effects of grain feeding on semen quality were most pronounced in straight-bred Angus bulls with a near doubling in the number of secondary defects. The seminal quality of all the bulls declined as body condition increased. In other words, the fatter the bull the less fertile he was.

It appears that the grain-fattened bulls were unable to cool the scrotum due to excessive fat deposits in the neck of the scrotum. The thermoregulatory mechanism maintaining the testes at ideal temperatures may be overwhelmed by increased scrotal insulation. The researchers concluded that for the best fertility, bulls should be grown from weaning to maturity on non-grain, forage diets. This is particularly true for the more easily fattened English breeds.

Cattle nutritionist, Dr. Dick Diven of Tucson, Arizona, said that this study confirms the decline in fertility found in bulls on grain-based gain tests in the USA. He said bull buyers need to be extremely skeptical of semen tests of bulls on gain tests as the semen tested may have been produced before the animal was put on the test. “We have seen instances where bulls were able to pass a semen test but were found to be completely shooting blanks later on in the pasture.”

Diven said that fat cells, once formed, are permanent. Any subsequent attempt to put the bull into breeding condition will again result in fat in the scrotum and a subsequent decline in sperm production and motility. “The bottom line is that a bull that has been made fat is for all intents and purposes ruined forever,” he said.

NOTE: Allan Nation is editor of [The Stockman GrassFarmer](#). Call 1-800-748-9808 to [subscribe](#).