Western Illinois University has performance tested bulls annually since 1973, having just completed its 44th consecutive year in March 2016. Tested bulls are auctioned off to buyers looking for animals to add performance to their beef herds. Performance Bull Tests provide important information concerning bull fertility and take into account several aspects that may affect future progeny. Consequently, bull fertility information is extremely important to producers when selecting a bull for breeding. Studies have shown that certain characteristics affect the overall success of breeding bulls, so it is important to consider the affects of the bull’s age, breed, scrotal circumference (SC), and pelvic area at the time of their breeding soundness exam (BSE). The BSE includes an external and internal physical exam and evaluates individual semen quality. BSEs at the WIU Bull Test are performed by a licensed veterinarian, who ranks the sperm sample quality as either excellent, good, fair, or poor.

Archived WIU Bull Test data from the past four years of BSEs was analyzed to identify if there were any significant correlations between semen quality and certain bull characteristics. Five different factors were evaluated to determine their individual effect on semen quality. These factors included Sale Year, Breed, BSE Age (in days), Pelvic Area (in square inches), and SC (in centimeters). Preliminary results suggest the BSE Age and SC significantly affect semen quality in yearling beef bulls.