

Abstract:

Jessica Akers

Sophomore, Agricultural Major from Clyde, TX

Carson Parker

Freshman, Agricultural Major from Merkel, TX

Research Team: Team AI Experts

The Effects of Handling and Thawing Bovine Semen on Viability Post-thaw

In the past fifty years, the process and technology of artificial insemination has improved tremendously; as well as conception rates. The technique is intensely used in the dairy industry but few producers use AI (7.6%) in beef production. Artificial insemination is heavily preferred due to the prospect of increasing performance of the herd by selecting superior sires, as well as decreasing the transmission of sexually transmitted diseases. Not only has the type of straw changed, glass ampule to polyvinyl chloride (PVC) French straw, but also the size of straw has transformed from 0.25 cc straw to 0.50 cc straw for faster insemination. Mistakes can occur from handling issues due to human error, thawing procedure errors, and mistakes in AI technique. In addition to handling errors, different thawing protocols (Table 1) with similar packaging exist depending upon the company where the semen was purchased. This can lead to additional mistakes during thawing. The success of AI is dependent upon semen viability pre and post-thaw. Further research indicates a need for less variation in thawing protocols and an increase in education with a goal of decreasing mishandling and improving AI technique. The objective of this study is to determine the effects of handling and thawing bovine semen on viability post-thaw.