Estrous cycles and reproductive behavior

A dairy farmer seeks for your help because some of his cows are not showing sexual receptivity. He has 200 lactating Holstein cows, with an average production of milk 22,000 pounds /lactation and a production at peak of lactation of 125 pounds/day. He has Cow manager© (this system includes three modules that measure health, fertility and feeding by constantly monitoring temperature, activity, rumination and eating time). The voluntary waiting period (VWP) is 50 days (Amount of time that producers wait to start inseminating the cow). He has seen the cows do not show heat or show a really “weak heat” in about ~50% of his herd, (because this problem after the voluntary waiting period is hard to inseminate and detect sexual receptivity) and he is losing money. He provided one example of a cow that exemplifies animals that are not showing heat or a weak heat. In this example he was not able to detect the animal in heat.

1. What is the reproductive problem of the case (1 point)
2. What are the probable causes of this problem (mention 4)? (4 points)
3. What tests/samples would you recommend to take and what would you assess? (2 points)
4. What would you recommend to the producer to increase or strength the display of sexual behaviors? (make three recommendations) (3 points)