

INTRODUCCION

- **Synchronization programs** are designed to restrict the intervals during which estrus detection needs to be done, or by eliminating the need for estrus detection, allowing for fixed-time artificial insemination (TAI).

Double Ovsynch



GPPG



GPPG + CIDR



PGF_{2α} = prostaglandin 2 alfa
GnRH = gonadotropin releasing hormone
AI = artificial insemination
CIDR = Controlled internal drug release

Figure 1. Schematic representation of the different protocols.

- **Heat stress** is a factor that seems to be related to low fertility in high producing dairy herds due to its addition to metabolic stress causing hormone imbalances.
- The advantages of **sexed semen** over conventional semen are numerous and varied, but the fertility is still low.

OBJECTIVES

1

To determine the fertility in the 1st and 2nd AI when different protocols are used

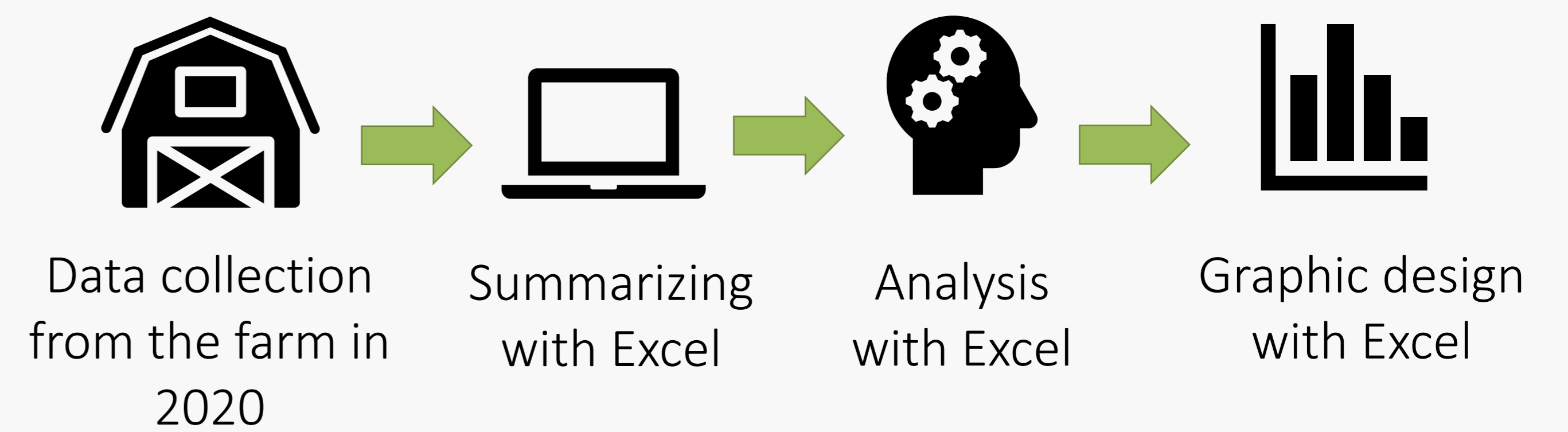
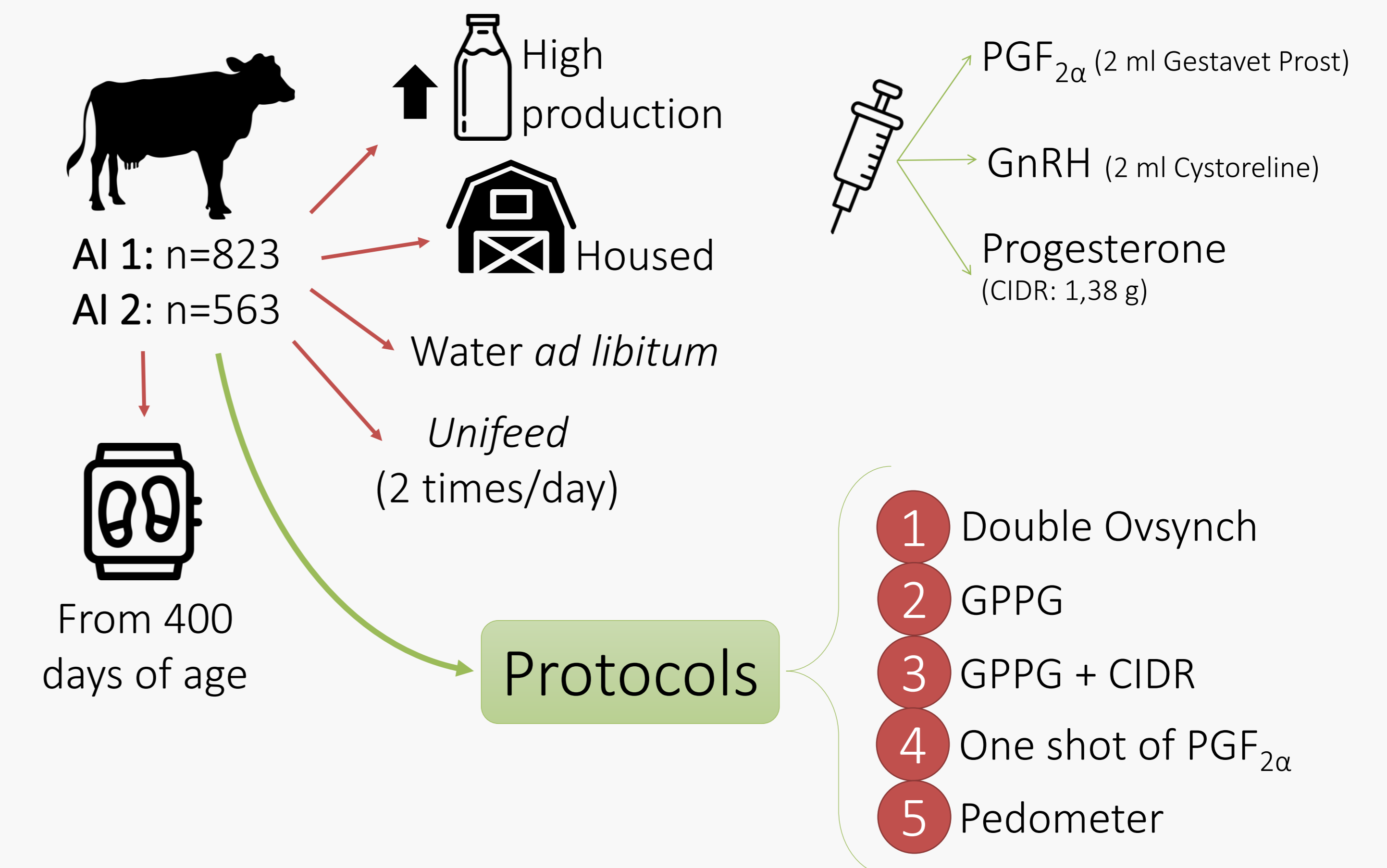
2

To evaluate the effect of the heat stress

3

To analyze the fertility when sexed semen is used

MATERIALS & METHODS



RESULTS & DISCUSSION

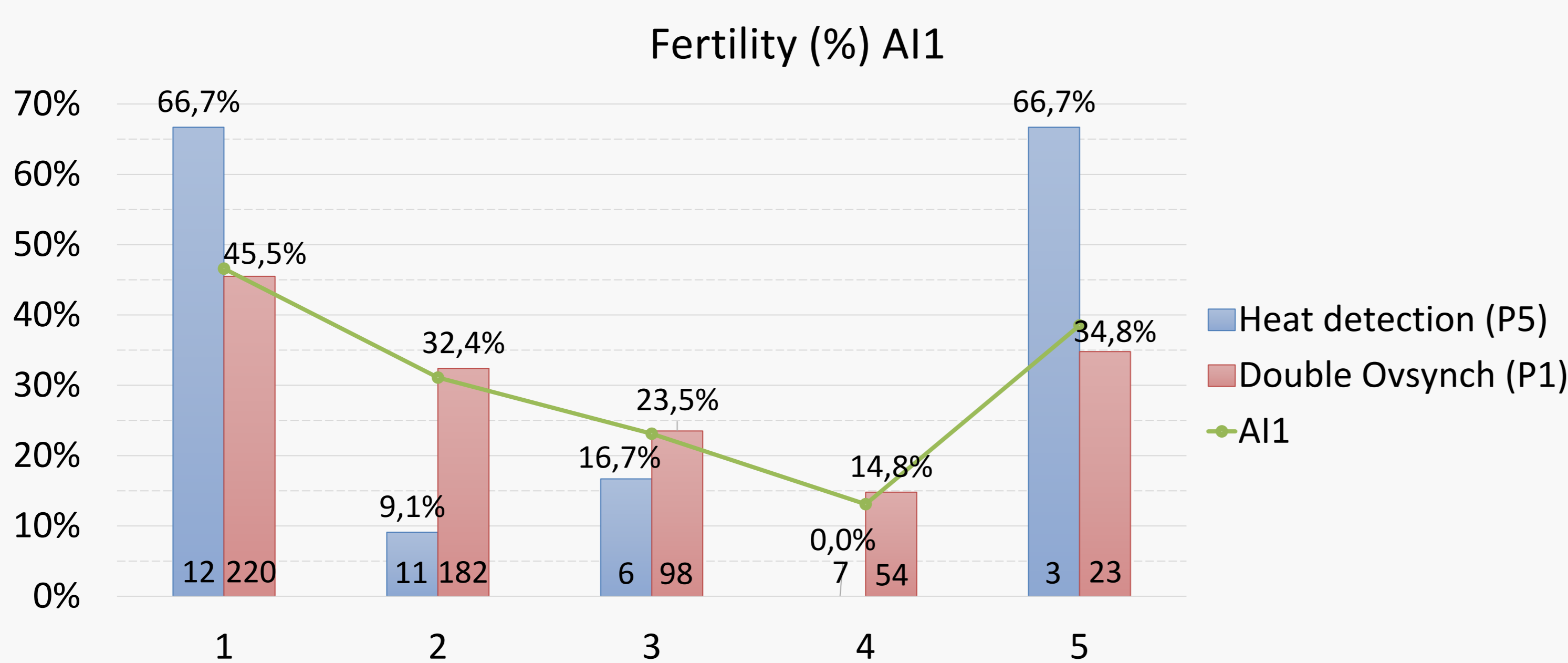


Figure 2. Cow's fertility at the 1st AI depending on the synchronization protocol and lactation number.

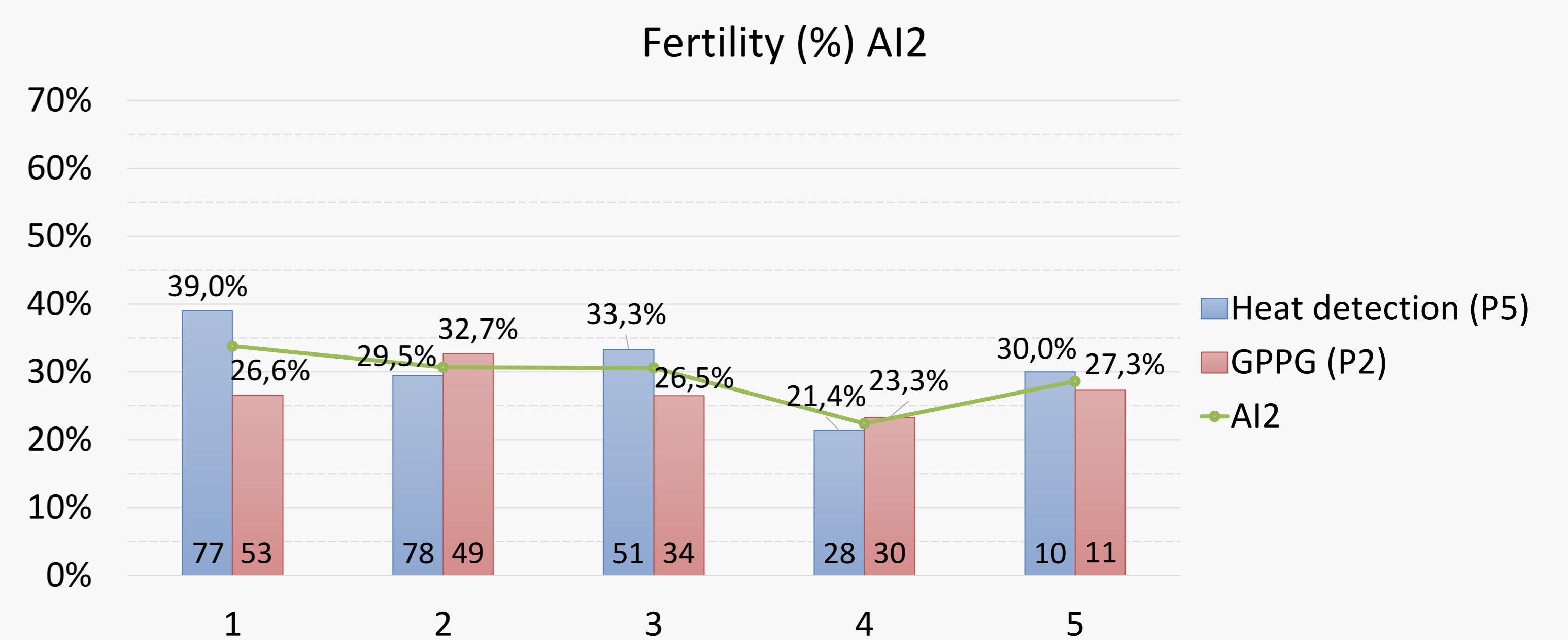


Figure 3. Cow's fertility at the 2nd AI depending on the synchronization protocol and lactation number.

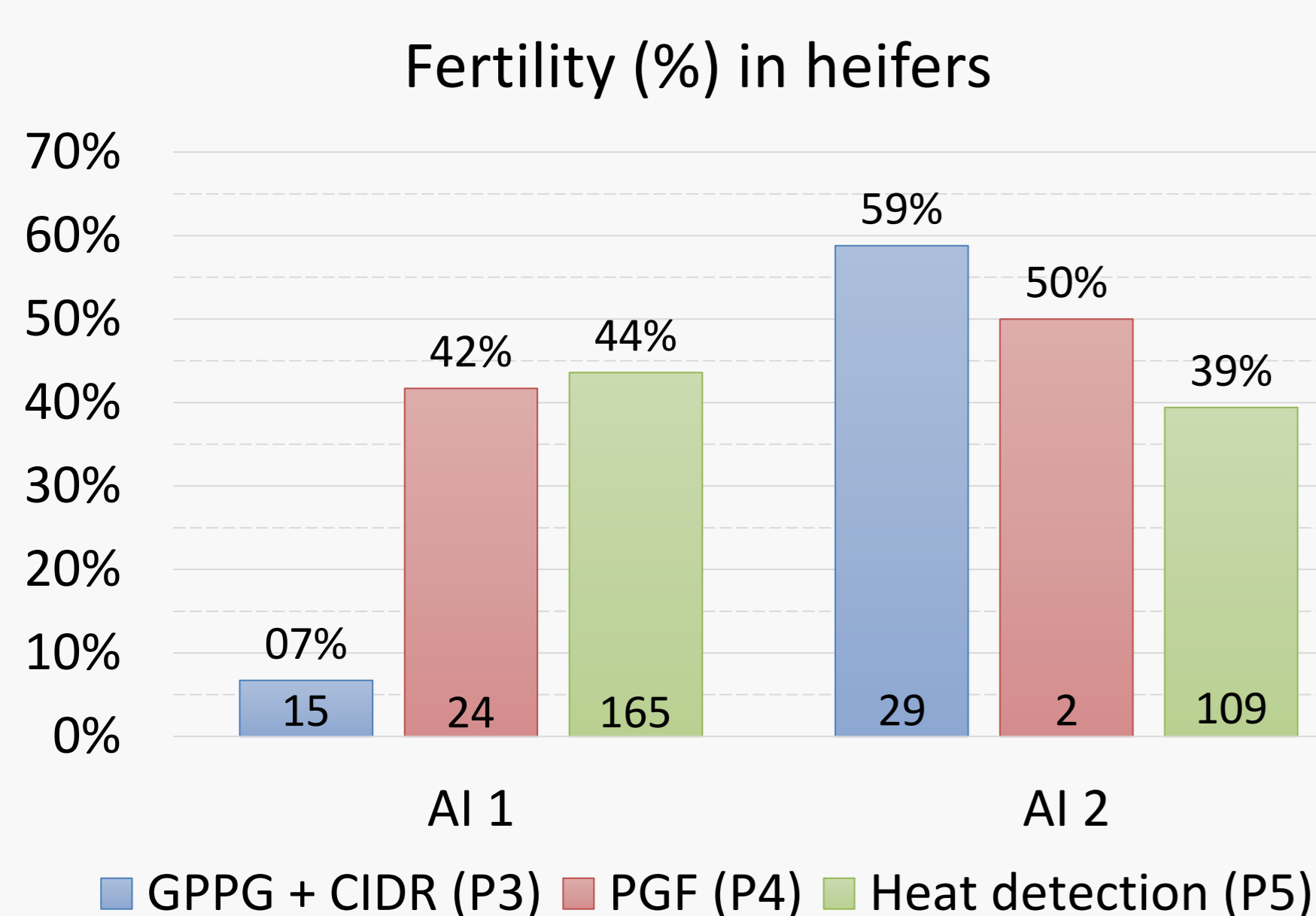


Figure 4. Heifer's fertility at the 1st AI and 2nd AI depending on the synchronization protocol.

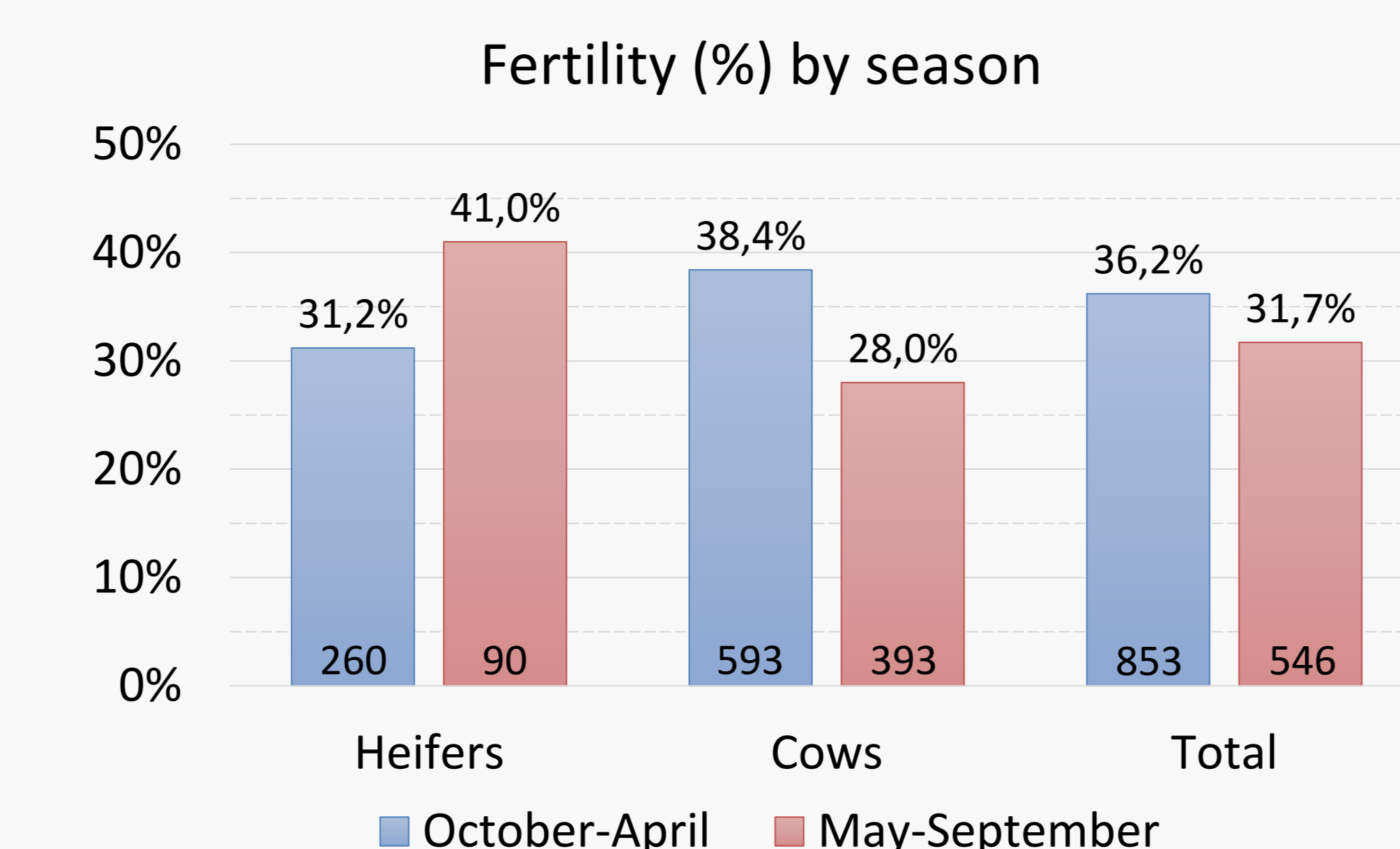


Figure 5. Effect of the season at which the AI was performed on the proportion of animals (cows and heifers) with a positive pregnancy diagnosis.

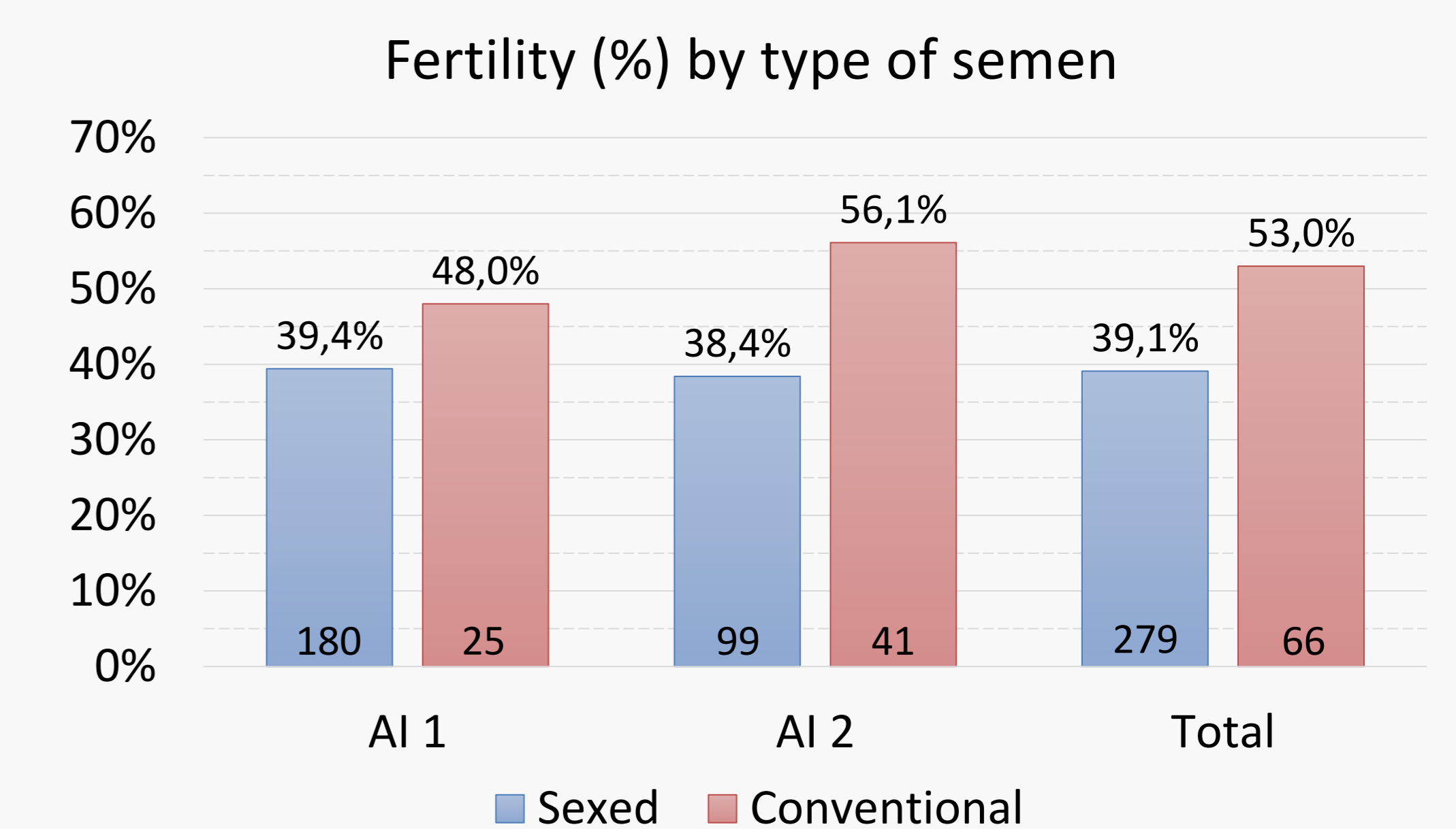


Figure 6. Effect of the use of sexed semen on the proportion of heifers with a positive pregnancy diagnosis at the 1st and 2nd IA.

CONCLUSIONS

1. The fertility of the various **protocols** used in this farm is acceptable and consistent with the studies reviewed.
2. **Heat stress** is evident on this farm and has a significant impact on the fertility of the herd. Temperature and humidity control, as well as the use of techniques to improve the thermal comfort of the animals, are recommended.
3. The fertility of the sexed semen is as expected, and recent research suggests that its use could be extended to primiparous cows.