

# Ita\_Impact of Estrus Response and Pregnancy Rate of Two Cows That Are Injected with Prostaglandin F2 $\alpha$ Hormone in The System Maintenance Is Different to Livestock Farming.docx

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*Impact of Estrus Response and Pregnancy Rate of Two Cows That Are Injected with Prostaglandin F2 $\alpha$  Hormone in The System Maintenance Is Different to Livestock Farming*

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**ABSTRACT**

The aim of the research was to examine the injection of the prostaglandin F2 $\alpha$  hormone on the estrus response and pregnancy in Ongole crossbreed and Simental crossbreed cows reared using intensive and semi-intensive rearing systems. The data obtained will be analyzed using analysis of variance (ANOVA) and if there is a real effect, continue with further testing with Duncan's Multiple Range Test. The results of research on the percentage of estrus after the first and second injection of the prostaglandin hormone can be seen in the table. The highest percentage of estrus was in the S1P2 treatment with a percentage value of 80% and the lowest percentage value was in the S2P1 and S2P2 treatments with a percentage value of 40%. The percentage of estrus after the second injection, the percentage value for all treatments increased and the percentage of estrus was highest in the S1P2 treatment with a value of 100%. The average value of onset of estrus after the second injection of the PGF2 $\alpha$  hormone was lower than the first injection. The longest duration of estrus in the treatment after the first PGF2 $\alpha$  hormone injection was in the S1P2 treatment with an average of 24.75 hours, while the longest duration of estrus in the treatment after the second PGF2 $\alpha$  hormone injection was in the S2P1 treatment with an average of 25 hours. PO cattle and Simental crossbreeds injected with PGF2 $\alpha$  gave no different estrous responses. Intensive and semi-intensive rearing systems provide no different estrous responses. Raising PO cows using a semi-intensive rearing system injected with PGF2 $\alpha$  provides an estrous response and high pregnancy rates (60).

**Keywords:** Livestock farming, Prostaglandin F2 $\alpha$  hormone, Ongole crossbreed cows, Simental crossbreed cows, estrus

## 1. INTRODUCTION

The cattle farming industry in Indonesia is still relatively slow, even though the demand for domestic cattle is very large. Consumption of beef and cow's milk always increases every year. Not to

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