

ABSTRACT

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Title of Thesis: Synchronization of OvSynch and HeatSynch in Friesian cows and heifers

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PreSynchronization programmers consisted of two injections of PGF2 α given 14 d apart. A total of 60 Friesian cows and heifers classified two experimental treated, (experiment 1 n= 40 cow) were divided into for group G (1) PreSynch and then received stander (OvSynch) (G1, n=10) and G2 (n=10) replacement estradiol ciprionate (ECP 0.5 mg i.m) substituted for the final injection of GnRH 24 h after the 3rd PGF2 α HeatSynch. G (3 and 4 n=10) treated the same protocols in experiment1 but using low dose of PGF2 α (6.25mg, intervulvo submucosal) and GnRH (50 μ g, i.m). Results showed that no differences in conception rate in 1st service were observed between G1 and G2 treated cows (50%), the same protocol with low doses also showed similar CR, being (20%), nor was there any interaction of BCS, cyclicity, anestrous cycle and day from post partum. Experiment (2) total of 20 Friesian heifers treated with OvSynch and HeatSynch protocol. CR did not differ.

Key words: Presynchronization, OvSynch, HeatSynch, conception rate Timed AI, cows and heifers.

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المستخلص

هدفت الدراسة الي تحسين الاداء التناسلي في ابقار وعجلات الفريزيان التي تعني مشاكل تناسلية مثل تكرار الشياع وحالة عدم النشاط المبيضي وذلك عن طريق استخدام معملات هرمونية مختلفة. منها حقن البروستاجلاندين مرتين بينهما ١٤ وذلك قبل استخدام بروتوكول استحداث التبويض او الشياع. استخدم في هذه الدراسة عدد ٦٠ بقرة وعجلة فريزيان قسمت الي تجربتين، التجربة الاولى (٤٠ بقرة) قسمت الي الربعة مجاميع، عوملت المجموعة الاولى بحقن جرعتين بروتاجلاندين ومن ثم استخدام بروتوكول استحداث التبويض (٩-٧-٠) والمجموعة الثانية استخدمت بروتوكول استحداث الشياع (٨-٧-٠). اما الابقار في المجموعة الثالثة والرابعة استخدمت نفس البوتوكولات المستخدمة في التجربة الاولى ولاكن بجرعات منخفضة من البروستاجلاندين والجونادوتروفينات في العضلة الشفوية لفتحة الحيا.

اظهرت النتائج عدم وجود اختلافات معنوية مابين المجموعتين الاولى والثانية في التجربة الاولى في معدل الاخصاب فكان متماثل في المجموعتين (٥٠%)، كذلك لم توجد اختلافات معنوية بين مجموعتين التجربة الثانية (٢٠%). ولاكن وجد اختلافات معنوية بين المجموعات في التجربتين الاولى والثانية (٥٠% الي ٢٠%). وتم تقدير التداخل بين المعاملات الهرمونية و الBCS ، الابقار متكررة الشياع والتي لم تظهر وكذلك الفترة من الولادة وحتى المعملة.

بينما في التجربة الثانية تم استخدم عدد ٢٠ عجلة فريزيان متاخرين في الاخصاب تم تقسيمها الي مجموعتين متماثلتين ١٠ عجلات في كل مجموعة عوملت المجموعة الاولى باستخدام بروتوكول استحداث التبويض (٩-٧-٠) والمجموعة الثانية استخدمت بروتوكول استحداث الشياع (٨-٧-٠). اظهرت الدراسة عدم وجود اختلافات معنوية في معدل الاخصاب في المجموعتين (٥٠%) عند التلقيحة الاولى، اما الحيوانات التي لم تخصب من التلقيحة الاولى واظهرت دورات شياع طبيعية ظهر اختلاف معنوي فكان في المجموعة الولي معدل الاخصاب (٨٠%) مقارنة بالثانية (٧٠%). وتم تقدير التداخل بين المعاملات الهرمونية و الBCS ، والعجلات متكررة الشياع والتي لم تظهر وكذلك العمر بالشهر.

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LIST OF ABBREVIATIONS

ABBREVIATIONS	DESCRIPTION
BCS	Body condition score
CI	Calving interval
CL	Corpus luteum
CR	Conception rate
DIM	Days in milk
DO	Days Open
E	Estrogen
EB	Energy balance
ECP	Estradiol cypionate
GnRH	Gdotrophin releasing hormone
HAI	Heat artificial insemination
i.m	Intramuscular injection
IGF-I	Insulin like growth factor one
IVSM	Interavaulvosubmucosa
LBW	Life body weight
LH	Luteinizing hormone
Mg	Milligram
NEB	Negative energy balance
NSC	Number of services per conception
P ₄	Progesterone
PGF2 α	Prostaglandin F2-alpha
PPFOI	Postpartum first estrus interval
PPFSI	Postpartum first service interval
PR	Pregnancy rate
RBH	Repeat breeder heifers
SP	Service period
TAI	Timed artificial insemination
VH	Virgin heifers
VWP	Voluntary waiting period
μ g	Microgram