

FORAGE AND LIVESTOCK RESEARCH - 1984

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ESTRUS SYNCHRONIZATION OF DAIRY HEIFERS WITH ESTRUMATE®

OR SYNCRO-MATE-B®

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SUMMARY

Estrumate® and Syncro-Mate-B® were evaluated for estrus synchronization of Holstein heifers, under practical farm conditions, in four East Texas herds. Eighty-eight heifers were examined by rectal palpation to assure estrous cyclicity then randomly assigned to one of the treatment compounds within ovarian status. Heifers were inseminated after standing estrus and finally examined for pregnancy. Data were analyzed by Chi Square with results of Estrumate® and Syncro-Mate-B®, respectively, as follows: heifers bred within five days 86 and 86.7%; heifers bred within seven days 93.0 and 88.9%; conception rate 60.0 and 42.2%, and pregnancy rate 55.8 and 45.2%. There were no significant differences between treatment for any of the measured values.

East Texas dairymen breed less than 25% of their dairy heifers by artificial insemination (AI) and thus they lose the superior genetic potential that comes from proven bulls. Difficulty in estrus detection is the major reason for not using AI. Use of synchronizing compounds should increase the efficacy of estrus detection and increase the number of heifers conceiving to AI.

OBJECTIVE

To increase application and efficiency of artificial insemination and enhance conception rates of dairy heifers through estrus synchronization and improved estrus detection.

PROCEDURE

Eighty-eight Holstein heifers from four East Texas herds were examined by rectal palpation and randomly assigned to one of two treatments within ovarian status to determine the efficacy of Estrumate® and Syncro-Mate-B® for estrus synchronization under practical farm conditions. Heifers were examined, assigned to

treatment and those receiving Syncro-Mate-B® were implanted at day zero. At day 9, implants were removed and the heifers receiving Estrumate® were injected with 500 µg. All heifers were inseminated approximately 12 hours after first exhibiting standing estrus. If heifers receiving Estrumate® had not exhibited estrus within 10 days a second injection was administered and again bred after exhibiting standing estrus.

Data were analyzed by the Chi Square procedure.

RESULTS

Data for the heifer study are shown in Table 1.

Analysis of these data showed no significant differences between treatments for heifers exhibiting estrus within five or seven days. While these data show an apparent advantage for Estrumate® in both pregnancy rate and conception rate the differences were not significant (χ^2 1.62 and 1.79 respectively). Both compounds tested were equally efficacious in heifers under practical farm conditions.

Choice of a synchronization compound should be made on management factors rather than efficacy considerations.

Table 1. Estrus incidence, conception rate and pregnancy rate of Holstein heifers synchronized with a prostaglandin or progestin

County	Treatment			
	Estrumate®		Syncro-Mate-B®	
	No	%	No	%
<u>Nacogdoches</u>				
Inseminated in 5 days	23/27	85.2	24/26	92.3
Inseminated in 7 days	26/27	96.3	24/26	92.3
Conception rate	15/26	57.7	11/25	44.0
Pregnancy rate	15/27	55.6	11/26	42.3
<u>Upshur</u>				
Inseminated in 5 days	14/16	87.5	15/19	78.9
Inseminated in 7 days	14/16	87.5	16/19	84.2
Conception rate	9/14	64.3	8/17	47.1
Pregnancy rate	9/16	56.2	8/19	42.1
<u>Total</u>				
Inseminated in 5 days	37/43	86.0	39/45	86.7
Inseminated in 7 days	40/43	93.0	40/45	88.9
Conception rate	24/40	60.0	19/42	45.2
Pregnancy rate	24/43	55.8	19/45	42.2

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