**Al after detection of estrus**

**2xPGF**

14 days

PGF  EDAI  PGF  EDAI

**Comments: 2xPGF**

Approximately 70% of heifers should be in estrus during 14 days after the first PGF. Remaining heifers should be in estrus after the second PGF. Non-responding heifers may be prepubertal.

**Definitions and comments:**

EDAI = estrous detection and Al after detection of estrus.

PGF = prostaglandin $F_{2\alpha}$.

CIDR = Controlled internal drug release intravaginal insert containing progesterone.

GnRH = gonadotropin-releasing hormone.

Intensity of red color within EDAI denotes periods to expect most heifers in estrus. Most heifers come into estrus 2 to 5 days after PGF.

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**CIDR-PGF**

**Option 1** (PGF at CIDR removal)

CIDR  7 days  EDAI  7 days

**Comments: CIDR-PGF**

Approximately 70% of heifers should be in estrus during 7 days after CIDR removal. Non-responding heifers may be prepubertal. Option 2 improves the synchrony of estrus. CIDR-based programs may induce fertile estrus in some heifers that are prepubertal at start of treatment.

**Option 2** (PGF at 1 day before CIDR removal)

CIDR  7 days  EDAI  7 days

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**Programs for Timed Al (TAI)**

**Comments: 5dCIDR_Cosynch72**

Option 1 yields greater conception rate to TAI than option 2.

**5dCIDR_Cosynch72**

(2 PGF) **Option 1**

5dCIDR_Cosynch72

(1 PGF) **Option 2**

5 days  24 h  48 h

PGF  GnRH  TAI

5 days  72 h

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**Calendars**

**AI after detection of estrus**

**2xPGF**

**CIDR-PGF - Option 1**

**CIDR-PGF - Option 2**

**Timed Al (TAI)**

**5dCIDR_Cosynch72**

Option 1

**5dCIDR_Cosynch72**

Option 2

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This protocol sheet was assembled by members of the Dairy Cattle Reproduction Council (DCRC). Programs are intended to promote sustainable food production by the dairy industry through sound reproductive management practices. The DCRC recommends working with a licensed veterinarian for proper use and administration of all reproductive hormones.