Reproductive Management Protocol

COWS BEING REBRED AFTER CALVING

- 1. All animals will be checked by the herd veterinarian for reproductive status beginning around 30 dim. They will not be bred unless cleared by the vet.
- 2. All lactating animals will start on timed AI during the first 70 days in milk. The only exception is animals with uterine infections or a specific prescription by the vet on an individual animal basis (ie. Cystic ovarian disorders).
- 3. Voluntary Waiting Period is 67 DIM
- 4. All animals receive 1st service through the timed AI program listed here:

PG3G protocol with 2 PG shots the Monday prior to breeding

PG3dGnRH7dGnRH7d(PG—8-12hr—PG)2d—GnRH—16hr—TAI									
	I			I					
F	Μ	Μ	Μ	W (pm)	Th(am)				

(1st lacation animals follow the protocol above with the exception of only getting one PG shot on the Monday prior to breeding.)

5. Every Monday at days 30-37 per rectal ultrasound examination is conducted. All open lactating cows are also given GnRH at this time. The following re-synch protocol is used for any animal reported open.

Blood & GnRH7d <u>If Open</u> (PG—8-12hr—PG)2d—GnRH—16hr—TAI							
		I					
Μ	Μ	W (pm)	Th(am)				

(1st lacation animals follow the protocol above with the exception of only getting one PG shot on the Monday prior to breeding.)

- 6. If animals are pregnant at 30-37 days, they are then re-checked by the vet between days 43-56 bred, at 90 days bred, and at 200 days bred.
- 7. Conception rate is monitored.
- 8. All full-time employees and students need to be informed about using the DELPRO activity reports so they know to inspect or evaluate cows with increased activity for other signs of heat.

Heifer Breeding

- 1. All observed heats will be recorded prior to 13 months of age. Based upon this information a heat expectancy action list will be generated so next heat can be anticipated and likely detected.
- 2. From 13 to 14 months of age, heifers of adequate size (13 months: 47 inches tall and 750 pounds; 14 months: 48 inches tall and 800 pounds; 15 months: 50 inches tall at the shoulder and 800-825 lbs. body weight from scales or weigh tape) will be bred based on observed heat.
- 3. Any heifer not bred prior to 13.5 months will start on PG shots.
- 4. Conception rate will be monitored.
- 5. In addition to recording the outcome of the insemination, the inseminator, interval from observed heat to insemination and breeding code will be recorded.

Notes:

a. Even though this is a timed insemination system the heat detection protocol remains the same. It is important to detect return heats after insemination.

b. PG and GnRH injections are given in the leg portion next to the udder.

c. Timing of Insemination: Cattle that return to heat following insemination and heifers exhibiting heat following synchronization should be inseminated immediately after being observed in heat.

d. Reproduction protocol is subject to change based upon a particular research protocol.

- e. CIDR's are used at the advice of the vet or on non-cyclic heifers
 - Cattle Inserts are to be administered intravaginally, one per animal. The EAZI-BREED CIDR Insert releases progesterone during the seven-day treatment period. To assure satisfactory synchronization, an injection of prostaglandin (PG) must be given to all heifers **one day before insert removal**. The EAZI-BREED CIDR Insert can be administered at any stage of the estrous cycle.
 - Insert EAZI-BREED CIDR Insert for seven days
 - Inject PG on day 6 following the insertion of the EAZI-BREED CIDR
 - Remove EAZI-BREED CIDR Insert on day 7 Tail-head mark animals with paint stick.
 - Observe for estrus during next four days
 - Breed/inseminate on detected estrus or if tail-head marking has been completely removed.
 - Heifers not observed in estrus or bred by day 7 after implant removal are injected with PG and observed for estrus. Heifers determined to be open are assigned to begin the CIDR-PG program again.

Day 0	Day 6	Day 7	8	9	10	11
Insert	Inject	Remove	←		tect and br	
CIDR®	5 mL	CIDR®		on ob	served es	trus
Insert	LUTALYSE	Insert				

EAZI-BREED and CIDR are trademarks of InterAg, Hamilton, New Zealand

For best results, follow these simple steps as suggested by Pharmacia:

- 1. Wear protective gloves whenever handling the EAZI-BREED CIDR Insert.
- 2. Prepare a container of clean water with disinfectant solution to wash the insert applicator between uses.
- 3. Fit the body of the insert into the applicator with the tail along the slot. The two wings will be pushed together, protruding about one inch above the top of the applicator.
- 4. Apply a generous amount of lubricant to the tip of the insert.
- 5. Shift the animal's tail to one side, and clean the vulva.
- 6. Make sure the tail of the EAZI-BREED CIDR Insert is on the underside of the applicator, curling down, to ensure that the tail will be hidden from curious penmates.
- 7. Open the lips of the vulva and insert the applicator at a slight upward angle, moving forward over the pelvic bone until it meets resistance.
- 8. Dispense the insert from the applicator by depressing the plunger, then slowly withdrawing the applicator body.
- 9. To prevent removal by curious penmates, you may want to clip the tail of the insert so that 2.5 inches protrude from the vulva.
- 10. To withdraw the insert, simply give the tail a gentle but firm pull to release the insert.

POTENTIAL CULL CANDIDATES AND NUMBER OF INSEMINATIONS

Culling and insemination are two of the most important decisions in managing dairy cattle. Optimum decisions can be made on when to discontinue inseminating a cow based on her relative value to the herd. There are several objectives to this protocol.

- 1. Do not promote problem breeders in the herd.
- 2. There is a point when it is no longer economical to continue inseminating.
- Cows that are not confirmed pregnant after 7 months into lactation will end up with very long days in milk if they eventually become pregnant. There is a very good probability that these animals will become over-

conditioned. In the long term this results in difficult calvings and metabolic problems which usually result in the animal being culled.

4. An animal that is tagged as a cull candidate because of not getting pregnant can remain in the herd as long as production and space permits.

Each month a report will be printed from Dairy Comp 305 listing ID DIM MTOT RELV RPRO TBRD FOR TBRD>4 RC=4. Decisions will be made on animals that should be coded NO BRED and any animal that should be culled.

Current breeding codes in Dairy Comp 305:

Lactating cows:

B-Bred off of standing heat C-Bred off of collar activity from Moomonitor or Delpro program P-1st service PG3G timed breeding with 2 PG shots (typically lact>1) S-1st service PG3G timed breeding with 1 PG shot (typically lact=0) R-Re-synch program, 2 PG shots (typically lact>1) E-Re-synch program, 1 PG shot (typically lact=0)

Virgin heifers

B – Bred off of standing heat

F – Bred off of signs of heat after CIDR removal