RECOMMENDED ESTRUS SYNCHRONIZATION STRATEGIES

Ron Torrell
University of Nevada Cooperative Extension, Elko, Nevada

The following protocols are recommended by the North Central Bovine Reproductive Task Force and the Beef Cattle Reproduction Leadership Team.
**BEEF COW PROTOCOLS**

### HEAT DETECTION

**Select Synch**

- **GnRH**
- **PG**
- Treatment day: 0, 4, 7, 13
- Heat detect & AI

**Select Synch + CIDR®**

- **GnRH**
- **PG**
- Treatment day: 0, 4, 7, 13
- Heat detect & AI

**MGA® Select**

- **MGA**
- **GnRH**
- **PG**
- Treatment day: 0, 14, 26, 33, 39
- Heat detect & AI

### HEAT DETECT & TIME AI (TAI)

**Select Synch & TAI**

- **GnRH**
- **PG**
- **AI**
- Treatment day: 0, 4, 7, 10
- Heat detect & AI

**Select Synch + CIDR® & TAI**

- **GnRH**
- **PG**
- **CIDR®**
- **AI**
- Treatment day: 0, 4, 7, 10
- Heat detect & AI

**MGA® Select & TAI**

- **MGA**
- **GnRH**
- **PG**
- **CIDR®**
- **AI**
- Treatment day: 0, 14, 26, 33, 36
- Heat detect & AI

### FIXED-TIME AI (TAI)

**CO-Synch + CIDR®**

- **GnRH**
- **PG**
- **CIDR®**
- **AI**
- Treatment day: 0, 7, 10
- Heat detect & AI

**MGA® Select**

- **MGA**
- **GnRH**
- **PG**
- **AI**
- Treatment day: 0, 14, 26, 33, 36
- Heat detect & AI

### COMPARISON OF PROTOCOLS FOR BEEF COWS

<table>
<thead>
<tr>
<th>HEAT DETECTION</th>
<th>COST</th>
<th>LABOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select Synch</td>
<td>Low</td>
<td>Medium/High</td>
</tr>
<tr>
<td>Select Synch + CIDR®</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>MGA® Select</td>
<td>Medium</td>
<td>Medium/High</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HEAT DETECT &amp; TAI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select Synch (TAI non-responders 72-84 hr after PG)</td>
</tr>
<tr>
<td>Select Synch + CIDR® (TAI non-responders 72-84 hr after PG)</td>
</tr>
<tr>
<td>MGA® Select (TAI non-responders 72-84 hr after PG)</td>
</tr>
</tbody>
</table>

### FIXED-TIME AI (TAI)

**CO-Synch + CIDR®**

- **GnRH**
- **PG**
- **CIDR®**
- **AI**
- (TAI at 66 hr after PG with GnRH at TAI)

**MGA® Select**

- **GnRH**
- **PG**
- **MGA**
- **AI**
- (TAI at 72 hr after PG with GnRH at TAI)

- The times listed for “Fixed-time AI” should be considered as the approximate average time of insemination. This should be based on the number of cows to inseminate, labor, and facilities.

- Estrumate®, In-Synch®, Lutalyse®, ProstaMate®

D.J. Schafer and D.J. Patterson
Division of Animal Sciences - University of Missouri – Columbia
These protocols are recommended by the North Central Region Bovine Reproduction Task Force.
**HEAT DETECTION**

1 Shot PG

[Diagram]

- Heat detect & AI
- Treatment days: -5 to 6

**CIDR®-PG**

[Diagram]

- Heat detect & AI
- Treatment days: 0 to 7

**MGA®-PG**

[Diagram]

- Heat detect & AI
- Treatment days: 0 to 14

**FIXED-TIME AI (TAI)**

**CO-Synch + CIDR®**

Perform TAI at 54 hr after PG with GnRH at TAI.

[Diagram]

- Heat detect & AI
- Treatment days: 0 to 7

**MGA®-PG**

Perform TAI at 72 hr after PG with GnRH at TAI.

[Diagram]

- Heat detect & AI
- Treatment days: 0 to 14

**HEAT DETECT & TIME AI (TAI)**

**Select Synch + CIDR® & TAI**

Heat detect and AI day 7 to 10 and TAI all non-responders 72 - 84 hr after PG with GnRH at TAI.

[Diagram]

- Heat detect & AI
- Treatment days: 0 to 7

**MGA®-PG & TAI**

Heat detect and AI day 33 to 36 and TAI all non-responders 72 - 84 hrs after PG with GnRH at TAI.

[Diagram]

- Heat detect & AI
- Treatment days: 0 to 33

**COMPARISON OF PROTOCOLS FOR BEEF HEIFERS**

<table>
<thead>
<tr>
<th>Protocol</th>
<th>Heat Detection</th>
<th>Cost</th>
<th>Labor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Shot PG</td>
<td>Low</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>CIDR®-PG</td>
<td>Medium</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MGA®-PG</td>
<td>Low</td>
<td>Low/Medium</td>
<td></td>
</tr>
</tbody>
</table>

**HEAT DETECT & TAI**

Select Synch + CIDR®

- (TAI non-responders 72-84 hr after PG)
- Heat detect & AI day 7 to 10
- Medium/Low

MGA®-PG

- (TAI non-responders 72-84 hr after PG)
- Heat detect & AI day 33 to 36
- Medium/Low

**FIXED-TIME AI (TAI)**

**CO-Synch + CIDR®**

- (TAI at 54 hr after PG with GnRH at TAI)
- Heat detect & AI day 7 to 10
- Medium/Low

MGA®-PG

- (TAI at 72 hr after PG with GnRH at TAI)
- Heat detect & AI day 33 to 36
- Medium/Low

- The times listed for “Fixed-time AI” should be considered as the approximate average time of insemination. This should be based on the number of heifers to inseminate, labor, and facilities.

- Cystorelin®, Factrel®, Fertagyl®, OvaCyst®
- Estrumate®, In-Synch®, Lutalyse®, ProstaMate®