

Timed Insemination Update

COOPERATIVE
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Ovsynch has been a popular hormone treatment protocol used by dairy farmers to synchronize ovulation so cows can be inseminated at a predetermined time.

Several modifications have been researched and utilized to improve the original protocol. The main improvement has been to presynchronize cows so they are close to estrous cycle day 10 when the Ovsynch protocol is started. One of the improved methods used in Kentucky is G6G Ovsynch.

This is the G6G Ovsynch protocol:

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|--------|--------|---------|-----------|----------|--------|----------|
| | PGF-AM | | GnRH-AM | | | |
| | | GnRH-AM | | | | |
| | | PGF-AM | | GnRH-PM | AI-AM | |

Recent research results indicate fertility is better if an additional PGF is given in week 3. In one study, the conception rate for one PGF shot was 34.4% and the conception rate for two shots was 37.6%.

The big difference is fewer cows have complete luteal regression (CL quits producing progesterone) after one PGF. These cows still have circulating progesterone and therefore have a zero chance of conceiving. A higher percentage of cows have complete luteal regression with two shots. The luteolysis rate is improved from 85% after one PGF to 96-98% by adding an additional PGF anytime from 8 to 24 hours after the Tuesday Ovsynch PGF.

The new protocol with an additional PGF on Wednesday of week three is below.

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|--------|--------|---------|-----------|----------|--------|----------|
| | PGF-AM | | GnRH-AM | | | |
| | | GnRH-AM | | | | |
| | | PGF-AM | PGF-AM | GnRH-PM | AI-AM | |

(Abbreviation key: CL = Corpus Luteum; GnRH = Gonadotropin-Releasing Hormone; PGF = Prostaglandin F2 alpha)