#### **Economics of Reproduction**

#### Joe Horner, Ryan Milholin, and Scott Poock Commercial Agriculture

#### Five ways to "Find 80 cents a Cow each day" Mike Hutjens

- Boost Components
- Long Day Lighting
- Fewer Days Open
- Higher Pregnancy Rates
- Extra Milking

2 out of 5 suggestions pertain to Reproduction

#### What is the added value of a Pregnancy?

• A pregnancy is worth \$200-500



# What is the cost of an extra day open?

 \$0.42 to \$4.95 a day for a day open after 110 DIM.

For examples let's use:

\$3.50/day



#### What is your average Days Open?

- 121 Herds on DHIA in Missouri
- Average 186 days open
- Range from 103 to 389 days open
- National Average 154

#### What is your average Days Open?

- 186-154=32
- 32\*3.5=112

 \$112 lost due to excessive days open per cow in the herd vs national average

#### What is the cost of poor reproduction?

 \$35 per cow in the herd for each % point increase in Pregnancy Rate

#### What is **Pregnancy Rate**?

## •100 cows



#### How many were bred?

## • **33** cows (heat detection rate)

• Or more importantly

## •<u>67 cows were not</u> bred!

#### How many will become pregnant?

## •12

• Therefore

# The Preg rate is 12%

## What is Pregnancy Rate?

- 100 cows
- 33 cows bred
- 33/100= 33%, Heat Detection Rate
- 12 diagnosed pregnant
- 12/100= **12%** Pregnancy Rate

• These are Missouri averages!

## What is your Pregnancy Rate

- 121 Herds on DHIA in Missouri
- 13 annualized average Pregnancy Rate
- National Average 18

## What is your Pregnancy Rate

- Average herd in Missouri 110 cows
- Increasing Pregnancy rate from 13 to 18 yields:

# • \$105.68 per cow in the herd

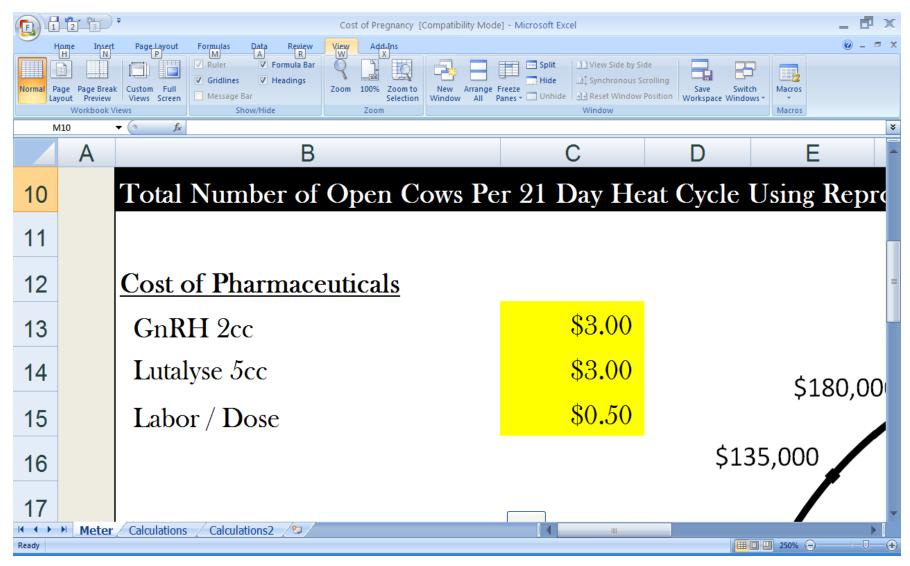
#### Using the Reproduction Economics Spreadsheet

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### Put in your herd's numbers (yellow boxes)

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# Fill in the cost of the medications and labor



#### Now change Conception Rate and Heat Detection Rate

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## Observe the change in \$/herd

