

**ABSTRACTS**  
**\* Author Presenting Paper**

**97 Induced lactation: physiology, perception, profitability and propriety.** R.S. Kensinger\*<sup>1</sup>, <sup>1</sup>*Penn State University, University Park.*

Methods to induce lactation in non-pregnant dairy animals have been studied for decades. Justifications include the potential to save good quality cows, increase days-in-milk, allow for internal expansion and to increase farm profitability. General attributes of common experimental methods are estrogen-progesterone treatments to simulate hormonal concentrations observed during late pregnancy, followed by milking. Cows initially produce colostrum, and attain peak milk production more gradually than postpartum cows. Recent work by our group showed that bST augmented milk yields of induced cows, with a mean milk yield of 27.1 kg/d for 305 days. Fertility during induced lactation was good for most cows, with several in subsequent postpartum lactations. Heifers were also induced into lactation at 15 mo. of age. Milk production average 17.5 kg/d over 300 d, with 3.7% fat, 3.3% protein. Fertility, growth and health of induced heifers was good, and lifetime performance data will be collected. An economic comparison of inducing cows versus using conventionally reared replacement heifers included fair market values for costs and multiple component pricing for milk. Net present value for an induced cow was \$520 greater than that for a heifer. Important, but unresolved issues related to this technology are public perception, FDA approval, and the proprietary nature of the technology.

**Key Words:** Induced lactation, Somatotropin, Economics