## What About Technology?

COOPERATIVE EXTENSION SERVICE



By: Jack McAllister, Ph.D.

Various dictionaries define "technology" as the "practical application of science to industry or commerce" or "applied science" for short. There are a plethora (a fancy word for an abundance) of technologies available to the modern dairy farm business. They exist for every facet of the dairy operation and come from every scientific area of dairy cow biology, engineering and economics. Examples are:

- 1. Nutrition feed additives (e.g. ionophores in transition cow diets)
- 2. Reproduction estrus synchronization programs and gender selected semen
- 3. Genetics genomic information as an aid in bull and cow selection
- 4. Physiology rBST and lighting control and its effects on growth and lactation
- 5. Health vaccines
- 6. Behavior dominant and subordinate cattle and overcrowding
- 7. Engineering facility design to enhance cow comfort, alternative housing systems and ventilation control
- 8. Mastitis control sanitary milking procedures, teat dipping and dry cow treatment
- 9. Economics and finance budgeting, cost control, and forward contracting of inputs and outputs for risk management

Do all these technologies have a practical application on the modern dairy farm? Can they be used to the benefit of the dairy farm business? You might guess that the only reason they are being mentioned is because the answer is obviously "YES"! Maybe the answer is not so obvious. Maybe the answer is "IT DEPENDS"!

What might the decision to adopt, adapt or use a particular technology depend upon? One consideration is how practical is it to apply the technology on an individual dairy farm? Who will actually be responsible for applying the technology? Another consideration is does the application of the technology have economic consequences? Does the value of the benefits exceed the costs? Can the technology be applied in such a way that the benefits are actually going to be realized? For what group or groups of animals on the dairy farm is the technology appropriate? Should the technology be used year – round or just at certain times of the year?

Beginnings of the new year are often suggested as a good time for re-evaluation, renewal or really heading in brand new directions. Would it be worthwhile for your dairy farm business to make a list of all the technologies you are using or could be using? If so, after making the list perhaps each technology could be evaluated against the following checklist:

- 1. Can I implement this technology in the way which makes it most effective?
- 2. Do I have the labor supply to implement the technology?
- 3. Is the technology cost effective?