

# OPINION

## Hello Dolly

By now, almost everyone has heard about Dolly, a cloned sheep. Dr. Ian Wilmut, a 52-year-old embryologist, is believed to be the first to create a clone using DNA from an adult animal. Wilmut fused a cell from the mammary gland of a six-year-old sheep with another ewe's egg cell. The genetic material from the former directed the egg from the latter to grow and divide. After implanting the embryo into a third sheep, the process created an animal with nuclear genes identical to the original.

Others have divided embryos soon after egg and sperm fusion, creating identical animals, but no clones had been successful until Wilmut. He and his colleagues have produced nine sheep through cloning, and they have cows pregnant with cloned calves.

While this is the latest and possibly the biggest medical breakthrough of the century, it is also the hottest ethical debate at present. Plastic surgery, organ transplants and test tube babies have prepared us for this development. Gene targeting in livestock should now be feasible by nuclear transfer from modified cell populations and will offer new opportunities in biotechnology.

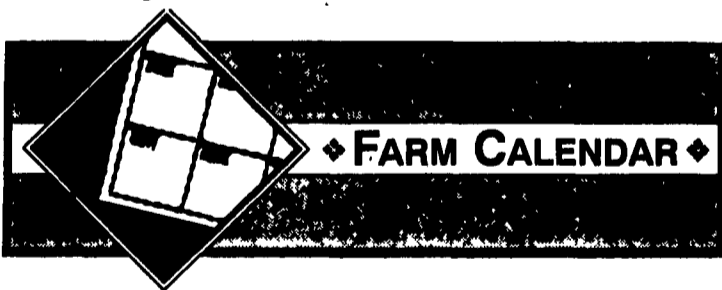
In the future, scientists will be able to clone an animal to meet a certain niche. Maybe they will cross tropical cattle with cattle suited to colder climates. Using current reproductive practices a hybrid is created and the end of the line for reproductive possibilities. With the new technology of cloning, that hybrid could be used to create more animals with its unique combination of traits.

But it's not that simple. In the transfer of fertilized eggs of cattle and sheep, researchers have discovered prolonged gestation and abnormally large offspring. This suggests that not all characteristics are linked to nuclear DNA. In addition, it is not likely that any given individual animal will have perfection in all traits of importance and the cloned animal is not guaranteed to produce the same as the original.

What was the prerogative of nature has now become the prerogative of the researcher. At many junctures along the path to the perfect animal the scientist becomes God, deciding what dies and what is allowed to reproduce. And suppose the genetic material gets twisted so the lamb becomes a lion.

In a New York Times article, Wilmut is said to want to create animals that could be used for medical research and he dismissed the notion of cloning humans. But even in dismissing the notion, the question has been raised.

On the other hand, when you read the daily news of what hideous atrocities people inflict on other people we wonder if some inhuman researcher has already injected some animal genes into the human spirit.



### FARM CALENDAR

**Saturday, May 3**  
 Eastern Llama and Alpaca Festival, Charming Forge Farm, Womelsdorf, 10 a.m.-5 p.m.  
 Adams County Apple Blossom Festival, South Mountain Fairgrounds, Arendtsville, 9 a.m.-5 p.m.  
 Plant Discovery Day, Secrest Arboretum, Ohio Agricultural Research and Development Center, Wooster.  
 Delaware County 4-H Spring Fair, Garrett Williamson Foundation, Newtown Square, 10 a.m.-2 p.m.

**Sunday, May 4**

**Monday, May 5**

**Tuesday, May 6**  
 Bucks-Mont Sheep Shearing School, Hidden Meadow Farm, Souderton, 5 p.m.-8:30 p.m., thru May 7.  
 Fulton County Agribusiness Breakfast, American Legion Post 561, McConnellsburg, 8 a.m.-9 a.m.

**Wednesday, May 7**  
 Pasture Walk, Jacob Zook, Christiana, 10 a.m.-noon.

**Thursday, May 8**  
 Study Circle Meeting, Safe Food Handling For Roadside Stand Operators, Kutztown Produce Auction, 7 p.m.

**Friday, May 9**

**Saturday, May 10**  
 Problem or Unbroke Horse Clinic, Penn State University Ag Area, State College, 8 a.m.-5 p.m. thru May 11.  
 Western Pa. Sheep and Lamb Sale, Mercer 4-H Park.  
 Capital Area Beekeepers' Assoc. Short Course, Dauphin County Agricultural and Natural Resources Center, Dauphin, 8 a.m.-4:30 p.m.

**Sunday, May 11**  
 Mother's Day

**Monday, May 12**  
 Poultry Management and Health Seminar, Kreider's Restaurant, Manheim, noon.

**Now Is The Time**  
 By John Schwartz  
 Lancaster County Agricultural Agent

#### To Change Feed For Cattle On Pasture

Glenn Shirk, Lancaster County extension dairy agent, reminds us that the rations of dairy cattle can change drastically as they are switched from a barn feeding program to a pasture-supported feeding program.

This is a change that should be made gradually as adjustments are being made to the nonpasture portion of the ration.

Initially, limit the amount of time cows are on pasture. Lush pastures are higher in soluble protein and total protein and lower in fiber and dry matter content. Therefore, it is generally beneficial to reduce the protein levels in the rest of the ration and to feed more soluble energy and more fiber.

Feeding more fiber to pastured cattle can help slow down the rate of feed passage, so the rumen has more time to digest it and make use of it.

#### To Control Excess Protein

Excess protein may be toxic and stressful to cows, according to

**Tuesday, May 13**

**Wednesday, May 14**  
 Eastern Region FFA Leadership Conference, Ephrata High School, Ephrata, 1 p.m.-8 p.m.

**Thursday, May 15**  
 New Bolton Center Lecture: Introduction to the Llama, New Bolton Center, Kennett Square, 7 p.m.  
 Pa. Fair at Phila. Park, Bensalem, thru May 26.

**Friday, May 16**

**Saturday, May 17**  
 Children: A Kaleidoscope of Opportunity, Lebanon Career and Technology Center, 9 a.m.-2:30 p.m.  
 Mercer County 4-H Market Lamb Weigh-In, Mercer 4-H Park.  
 Idlewild Ruritan Plow and Field Day, Bridgeville, Del., 9 a.m.-4 p.m.; rainedate May 24.  
 Pa. Emu Farmers Association Annual Spring Seminar, Farm and Home Center, Lancaster, 9 a.m.-5 p.m.

**Sunday, May 18**

**Monday, May 19**

**Tuesday, May 20**  
 Pa. Shorthorn Breeders Association Spring Sale, Mercer 4-H Park.

**Wednesday, May 21**

**Thursday, May 22**

**Friday, May 23**  
 Northwest Junior Beef Classic, Butler Fairgrounds, also May 24.

Glenn Shirk, Lancaster County extension dairy agent.

Extra energy is consumed to metabolize and excrete the excess protein. This energy is no longer available support milk production or keep cows in good flesh.

The lack of flesh and the toxic affect of excess protein may also have a negative impact on reproduction.

Feeding additional soluble energy may help cows utilize more of the soluble protein in lush pastures. Thus, less of the protein is wasted and there is less risk of toxicity problems.

The milk urea nitrogen (MUN) test, offered by Lancaster or Pennsylvania DHIA, is a good tool for helping to monitor how effectively the protein in the ration is being utilized.

#### To Provide Water To Horses

According to Chester D. Hughes, Lancaster County extension livestock agent, water is as essential to good nutrition as any solid

feed. It should be fresh, clean, and available to the horse at all times.

Horses may be watered before, after, or during feeding. However, horses should not be given water if they are overheated.

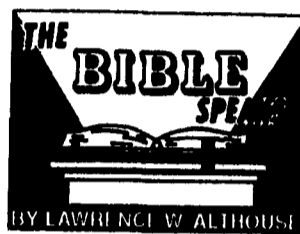
Normally a mature horse drinks 10 to 12 gallons of water a day. When the temperature is high or during work periods, the amount consumed is considerably greater.

Some authorities state that a horse may produce about 10 gallons of saliva per day. Saliva starts the digestive process, so ample water is necessary for good digestion.

Water cools the horse by carrying off excess body heat. In cold weather it assists in conserving heat and helps to maintain body temperature.

Water is also the major component of blood that carries nutrients to all parts of the body.

*Feather Prof.'s Footnote:* "There are many things in life that will catch your eye, but only a few will catch your heart... pursue those."



#### OPENING THE SCROLL

May 4, 1997

**Background Scripture:**  
 Revelation 4:1-11  
**Devotional Reading:**  
 Revelation 4 through 5

I am not saying that it does not exist, but I have viewed a lot of religious art over the years and never seen a depiction of John's vision in Revelation 4 and 5. Why? Because his vision defies visualization. It is too grand, too complex, too mysterious to be reduced to an artist's representation.

And that stands as a warning to us: don't get too caught up in the details of John's vision. Rather, concentrate on what that vision meant to him and can mean to us.

So, looking beyond the heavenly throne of God — to the rainbow round the throne, the seven torches of fire, "the sea of glass like crystal," the 24 thrones of elders in white garments and golden crowns, the flashes of lightning and peals of thunder, the "four living creatures," the scroll with seven seals, the seven-eyed and — horned Lamb, the myriads of singing angels, and "every creature in heaven and on earth" — how does this vision speak to us today?

#### THE SEALED SCROLL

Obviously, "he who sat there" on the throne is God. The slain but victorious Lamb is, of course, Christ. But what is the meaning of the "scroll... sealed with seven seals?"

Biblical scholars point out that the scroll is a symbol that appears at various places in the Hebrew literature. In Ezekiel 2:9,10 the prophet is handed a scroll of lamentations by God who sits on his throne. In Isaiah 29:11 the prophet writes: "And the vision of all this has come to you like the words of a book that is sealed. When men give it to one who can read, saying, 'Read this,' he says, 'I cannot for it is sealed.'" And in several books of the Apocrypha there is mention of a heavenly scroll that tells of the destiny of the world before the end of time.

In Revelation the scroll with seven seals represents the mind of God in which there lies the know-

ledge of things to come, especially the destiny of the world and humankind. The scroll is sealed and thus is a mystery. The number seven was the number of completion and perfection, so the scroll contains what from the beginning of time we have sought so desperately and variously. Why are we here? Where is life headed? When we get where we're going, where will we be?

#### UNIVERSAL QUESTION

You and I may never have a vision like that, but we all want to know what is inside that scroll. It contains the key to the meaning of our existence and the universe into which we are born, live and die. And the question which John hears raised by a "strong angel" is a universal one: "Who is worthy to open the scroll and break its seals?" (Rev. 5:2).

You may never have phrased it just like that, but I am confident you have raised the question. Who can see and explain the mind of God? Who can tell me what it's all about? Whom can I believe and follow? And our experience is pretty much what John saw: "And no one in heaven or on earth was able to open the scroll or to look into it" (5:3,4). Despite the claims of some, there has never been anyone able to enter into the mind of God and know his secrets.

With one exception! The Lamb: "Worthy art thou to take the scroll and to open its seals..." (5:9). Only the Christ who offered himself for us is worthy and able to break the seals and read to us the scroll. Only Christ can reveal to us the mind of God and the destiny of humankind. Only Christ can give us "good news" that remains "good" for the rest of time and eternity.

*(The Althouses will walk in the footsteps of Paul and John of Revelation, leading a tour to Turkey next Oct. 17-Nov. 2. For information write: "Turkish Delight," 4412 Shenandoah Ave., Dallas, TX 75205 (214) 521-2522.)*

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