

## Cloned Food

Just a few days ago several TV networks stated that we may be soon eating cloned food. This may bother some people but here is why I think cloned foods, vegetable or meat is safe.

First of all most of the vegetables and fruits are cloned. A clone is the exact genetic duplicate of its parent. Clones are produced in plants by cuttings, grafts, etc. If you plant fruit trees they will be grafted varieties, or clones of say Fuji or Braeburn apples. Strawberries as they spread by runners, runners are clones of the mother plant. Brambles raspberries, blackberries, etc are reproduced by cuttings producing clones of the variety. Grapes are reproduced by cuttings to produce clones of say the Concord grape variety.

Now when we come to animals, there are no natural clones like there are in plants. Cloned sheep like Dolly, and cloned Holstein dairy cows like Betty and Cathy that were shown on the evening news are produced by what is called somatic cell nuclear transfer.

This is done by taking a female egg cell from a cow for example and taking the nucleus out. Then the nucleus is taken out of a somatic body cell of that same cow and placed in the egg cell that had its nucleus extracted. So you get an egg cell in which the nucleus was replaced by a nucleus from a somatic cell or body cell. This nuclear transplant causes the egg cell to start dividing like a fertilized egg. Since this egg cell and nucleus that was added, are from the same cow, it will produce a clone. This dividing developing egg cell is put in a surrogate cow to grow to normal calf size and be born.

Livestock produced this way are a clone of their mother parent. The meat from cloned cattle, sheep, etc. should be exactly like its parent, and safe. I believe meat from such cloned animals is safe to eat, since it has not been changed, no foreign material, genes, steroids, etc. have been added.

Clones are safe I believe, and of course this is my opinion, not from any intense scientific research. Also when cloned meat is put on the market, we will probably not be told anyway unless you all insist that it be labeled. Besides, there are very few cloned animals, its very expensive \$25-30,000 for cattle. They clone only very valuable cattle, etc. These animals will only be slaughtered when they are old and declining in health, so if you ever eat some cloned meat, it will probably be in a hamburger.