

- 91 Introduction
 - A. animal agriculture
 - 1. animals
 - 2. not just for meat
 - B. Selective breeding
 - 1. aim
 - 2. plateau
 - 3. speed
- 92 Genetic manipulation and transgenic animals
 - A. Pro-nuclear infection
 - 1. goal
 - 2. process
 - 3. limitation
 - 4. limited successes
 - 5. mastitis
 - 6. ω -3 fatty acid production story
 - 7. production of human proteins/pharmaceuticals in transgenic lactating animals
 - B. Somatic cell nuclear transfer (SCNT)
 - 1. first done
 - 2. process
 - 3. Dolly
 - 4. efficiency
 - 5. life span
- 93 Genetically engineered hormones and vaccines
 - A. Bovine
 - 1. recombinant production
 - 2. use
 - 3. approval
 - 4. problems
 - B. Pig
 - 1. use
 - 2. problems
 - C. Animal vaccines
- 94 Animal organs for human patients
 - A. organism
 - B. reason for rejection / enzyme deleted
- 95 Genetically modified insects
 - A. Why
 - B. Disease research focuses
 - C. Economics research focuses
 - D. Sterile insect technique (SIT)
- 96 A look to the future

97 Diagnostics in plant and animal agriculture

A.past

B.Now

C.Assays

1.Immunoassays

2.NA probes

3.how help

4.examples