# 國立嘉義大學100學年度
# 農業科學博士學位學程招生考試試題

## 科目：農學專業英文

**請將下列短文翻譯成中文（每題25分）**

1.

To improve the diagnosis accuracy of staphylococcal infection in dairy goat with mastitis, we develops a multiplex polymerase chain reaction (PCR) assay by targeting specific regions of staphylococcal 16S rRNA for identification of staphylococcal infection, using specific nuc gene of S. aureus to distinguish S. aureus and the coagulase negative Staphylococci (CNS), and mecA gene responsible for oxacillin or methicillin resistance to determine methicillin resistant staphylococcus aureus (MRSA). The Analytical Profile Index (API) method, and PCR method were used to examine 3,427 milk samples from subclinically infected herds with traditional culture, and revealed 41.4% bacterial infection. E. coli, coagulase-negative staphylococci and S. aureus were the predominant bacteria and their prevalence differed among farms. Genotype Al S. aureus was clonally disseminated on most farms, except farms A, B, D, and E.

2.

Wolves are not supposed to be able to climb trees or fences. But a wolf named Virginia chose not to abide by nature's rules and escaped the Los Angeles Zoo in 1979 multiple times by ascending trees, climbing fences and walking along branches toward her eventual freedom. At one point, she eluded veterinarians and zoo officials for a month; they spotted Virginia occasionally and tried to subdue her with tranquilizer guns, to no avail. A zookeeper at the time joked that Los Angeles had the largest wolf exhibit in the world — 4,000 acres (1,620 hectares) in nearby Griffith Park. It's unclear whether Virginia was ever recaptured.

3.

Conventional and biotechnological breeding are complementary approaches and can be expected to enhance the efficiency of breeding for stress resistance and yield. The use of physiological knowledge and powerful tools of molecular genetic analysis requires a systems approach, with agronomists, physiologists, breeders, and biotechnologists working together with farmers to raise crop yields and farmer income in stressful environments, particularly in marginal soils of the tropics.

4.

Forest certification was launched over a decade ago to help protect forests from destructive logging practices. Like the "organically grown" sticker on produce, forest certification was intended as a seal of approval -- a means of notifying consumers that a wood or paper product comes from forests managed in accordance with strict environmental and social standards. For example, a person shopping for flooring or furniture would seek a certified forest product to be sure that the wood was harvested in a sustainable manner from a healthy forest, and not clearcut from a tropical rainforest or the ancestral homelands of forest-dependent indigenous people.

Increasing consumer demand for certification creates a powerful incentive for retailers and manufacturers to seek out good wood suppliers. This in turn prompts forest managers to adopt ecologically sound certified practices that maintain natural forest characteristics, and to move away from destructive techniques like large-scale clearcutting, logging in endangered and old-growth forests and destruction of natural forests for replacement by barren tree plantations.