

# 國立嘉義大學九十四學年度

## 園藝學系碩士班招生考試試題

### 科目：專業英文

#### 一、請寫出下列文章內容的意義：(20分)

Early flower drop - flowers that abort before opening or fall during the flowering period are often small and, if examined closely, may be found to have undeveloped pistils. Late flower drop - flowers that drop shortly after anthesis commonly do so as a result of inadequate pollination or failure of fertilization. Mid-season fruit drop - often called 'June' or 'December' drop. This will be discussed in the section dealing with fruit growth.

#### 二、試將下列英文翻譯成中文：(20分)

Precision agriculture is a comprehensive system that relies on information, technology and management to optimize agricultural production. While used since the mid-1980s in agronomic crops, it is attracting increasing interest in horticultural crops. Relatively high per acre crop values for some horticultural crops and crop response to variability in soil and nutrients makes precision agriculture an attractive production system. Precision agriculture efforts in the Department of Biological and Agricultural Engineering at North Carolina State University are currently focused in two functional areas: site-specific management and postharvest process management. Much of the information base, technology, and management practices developed in agronomic crops have practical and potentially profitable applications in fruit and vegetable production. Mechanized soil sampling, pest scouting and variable rate control systems are readily adapted to horticultural crops. (HortTechnology. 10 (3) p. 448-451.)

#### 三、請寫出下列文章內容的意義：(20分)

Regeneration via shoot organogenesis and somatic embryogenesis was observed from thidiazuron (TDZ)-treated leaf and petiole explants of greenhouse- and in vitro-grown African violet plants. The response of cultures to other growth regulators over a range of 0.5  $\mu$ M to 10  $\mu$ M was 50% less than that observed with TDZ. A comparative study among several cultivars of African violet indicated that 'Benjamin' and 'William' had the highest regeneration potential. In 'Benjamin', higher frequencies of shoot organogenesis (twofold) and somatic embryogenesis (a 50% increase) were observed from in vitro- and greenhouse-grown plants, respectively. At concentrations lower than 2.5  $\mu$ M, TDZ induced shoot organogenesis, whereas at higher doses (5-10  $\mu$ M) somatic embryos were formed. These findings provide the first report of simultaneous shoot organogenesis and somatic embryogenesis of African violet explants in response to TDZ.

#### 四、試將下列英文翻譯成中文：(20分)

Once a landscape design has been completed and received approval from the client, it must be installed. *Landscape installation* is the actual construction of the landscape. The process of in-stallation lifts the design from paper and brings it to reality. It is the landscape contractor who is most often involved in large landscape installations. Even if the job is the responsibility of a landscape architect, the landscape contractor is often subcontracted to do the actual installation. In cases which require only the use of plant materials, the landscape nurseryman or woman may also do some installation.

#### 五、解釋名詞（請針對園藝或農業專有名詞解釋下列詞彙）：(每題5分，共20分)

- (一) modified atmosphere (M A) storage
- (二) ripening
- (三) pickling
- (四) essential oil