

# T S I P S



農業部

## 種苗改良繁殖場

Taiwan Seed Improvement  
and Propagation Station, MOA

種苗行政大樓



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# 農業部種苗改良繁殖場

Taiwan Seed Improvement and  
Propagation Station, Ministry of Agriculture

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## 任務目標 Objectives

本場為政府專責之植物種苗研究及生產機構，從事種苗科技之研發，配合政策生產供應優良種苗，輔導種苗產業，以提升種苗產業之競爭力。

TSIPS is a government institution dedicated to the research and development of seedling technology. It produces and supplies high-quality seedlings in line with government policies, and supports the seedling industry to enhance its competitiveness."

### ■主要工作目標

1. 新品種育成技術研發與應用，推動優良品種創新。
2. 研發植物種苗繁殖技術及產程管理體系，增進種苗產業競爭力。
3. 植物種苗品質、病原檢測服務與技術開發，持續產業領先優勢。
4. 植物品種權保護技術之建立及執行，保障育種者權利。
5. 量產供應植物優良健康種苗，執行政府決策。
6. 提供種苗資訊與技術服務，落實成果產業化。

### ■Main Functions

1. Research and apply innovative techniques for the development of new plant varieties, driving excellence in variety innovation.
2. Develop plant seed and seedling propagation techniques and production process management systems to enhance the competitiveness of the seed industry.
3. Ensure continuous industry leadership through the quality and pathogen detection services, as well as the development of techniques for plant seeds and seedlings.
4. Establish and execute distinctness, uniformity, and stability (DUS) testing techniques for plant variety protection, ensuring plant breeders' rights.
5. Mass-produce and supply high-quality and healthy plant seedlings, implementing government policies.
6. Offer innovative information and technical services related to seeds and seedlings, and facilitate the industrialization of R&D achievements.



# 沿革

種苗改良繁殖場（TSIPS）位於臺中市新社區，於民國 2 年成立為「大南庄蔗苗養成所」。民國 34 年臺灣光復後，改名為「臺灣省農林處蔗苗繁殖場」，後來在民國 41 年更名為「農林廳種苗繁殖場」，並擴展生產各類作物的苗木。民國 52 年進行組織重整以推行企業化經營，積極規劃產銷業務，並逐年擴充設備。屏東分場於民國 65 年成立。民國 70 年更名為「農林廳種苗改良繁殖場」，以強調研究與發展的重點，並於民國 88 年隸屬行政院農業委員會。民國 97 年，種苗場開始統籌植物品種權檢定、鑑定。民國 101 年，接管 ISTA 認證實驗室，並於民國 104 年成立了種苗檢測與驗證中心。民國 112 年 8 月 1 日，隨著農委會升格為農業部，種苗場即配合更名為「農業部種苗改良繁殖場」。

## History

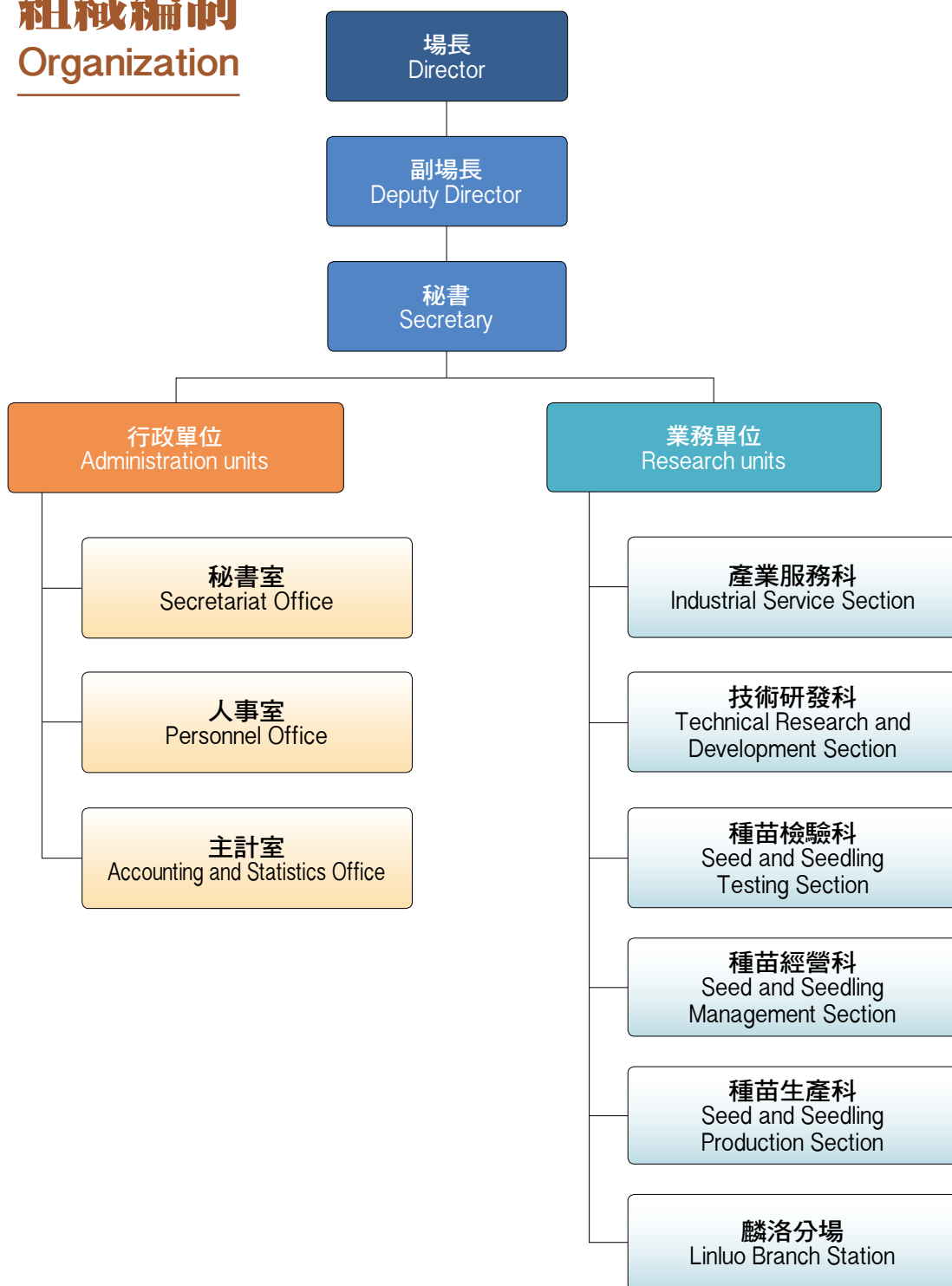
The Taiwan Seed Improvement and Propagation Station (TSIPS), located in Xinshe, Taichung City, was founded in 1913 as the "Danan Sugarcane Seedling Nursery." After Taiwan's retrocession in 1945, it was renamed the "Taiwan Provincial Sugarcane Seedling Propagation Station," and later in 1952, it became the "Seed Propagation Station," expanding its production to various crop seedlings. In 1963, the organization was restructured to promote business-oriented operations, actively plan production and sales activities, and expand equipment annually. The Pingtung Substation was established in 1976. In 1981, it was renamed the "Seed Improvement and Propagation Station" to emphasize research and development, and in 1999, it became affiliated with the Council of Agriculture, Executive Yuan. In 2008, TSIPS began coordinating plant variety right examinations DUS testing. In 2012, it took over the ISTA-accredited lab, and in 2015, the Seedling Testing and Certification Center was established. On August 1, 2023, following the elevation of the Council of Agriculture to ministry status, TSIPS was renamed the "Seed Improvement and Propagation Station, Ministry of Agriculture."



種苗檢測及驗證中心

# 組織編制

## Organization





## 地理位置及農業環境 Location & Climatic Condition

### ■本場（臺中市新社區）

海 拔：525 公尺  
年平均溫度：21.3℃  
最 高 溫：31.9℃（7、8 月）  
最 低 溫：2.6℃（1、12 月）  
年 雨 量：1,711 毫米  
面 積：105 公頃

### ■Headquarters

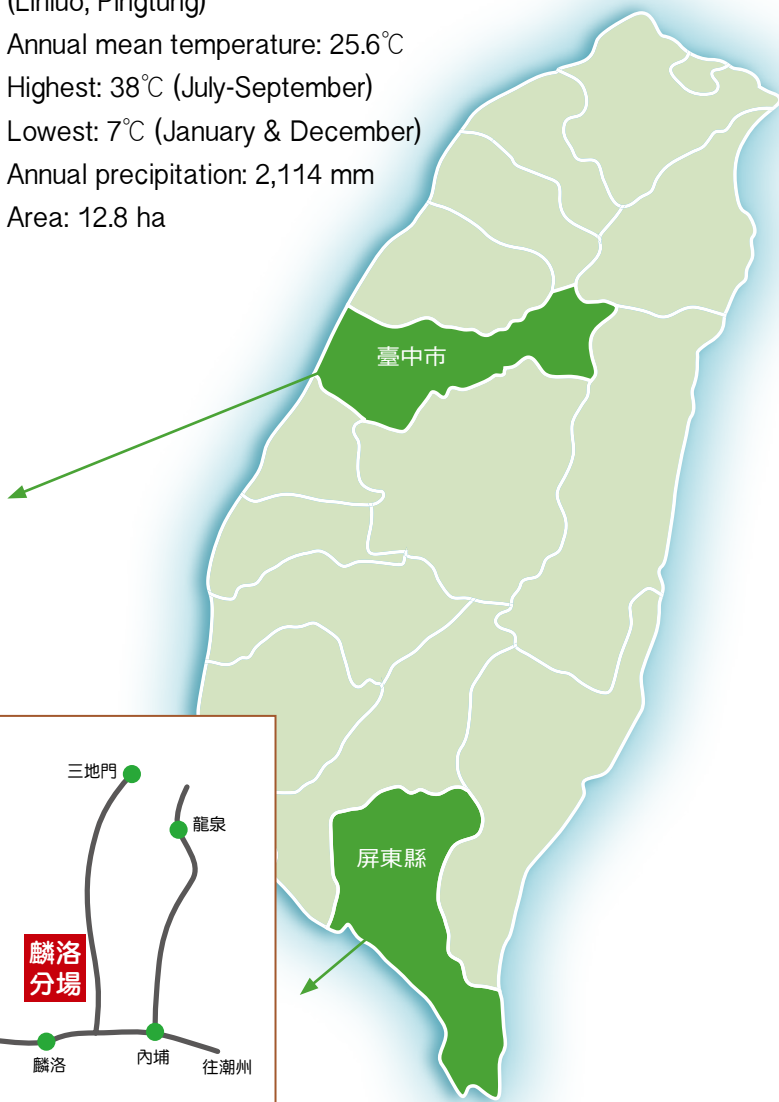
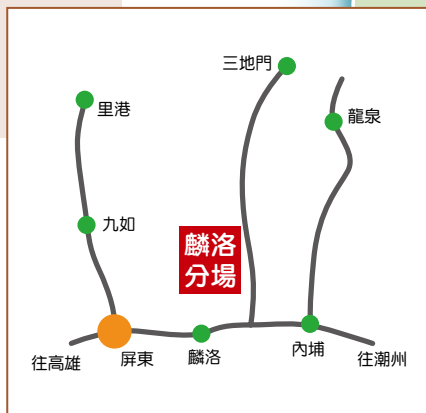
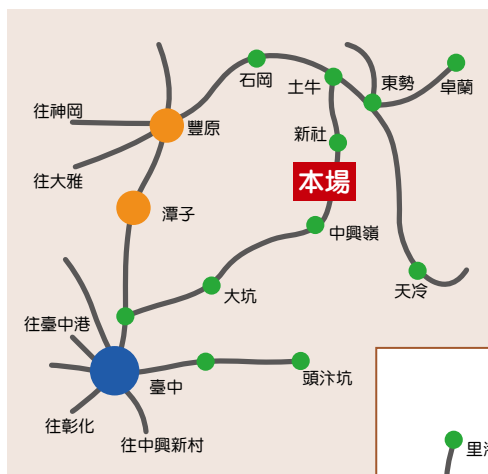
(Xinshe, Taichung)  
Elevation: 525m  
Average annual temperature: 21.3℃  
Highest: 31.9℃ (July & August)  
Lowest: 2.6℃ (January & December)  
Annual precipitation: 1,711 mm  
Area: 105 ha

### ■麟洛分場（屏東縣麟洛鄉）

年平均溫度：25.6℃  
最 高 溫：38℃（7-9 月）  
最 低 溫：7℃（1、12 月）  
年 雨 量：2,114 毫米  
面 積：12.8 公頃

### ■Linluo Branch Station

(Linluo, Pingtung)  
Annual mean temperature: 25.6℃  
Highest: 38℃ (July-September)  
Lowest: 7℃ (January & December)  
Annual precipitation: 2,114 mm  
Area: 12.8 ha



# 國際驗證 種苗檢測服務

International Certification Seedling  
Testing Services



## ● 技術創新 標準化作業

Technical Innovation and Standardized Operations

## ● 檢測共通性、國際化

Test Commonality and Internationalization



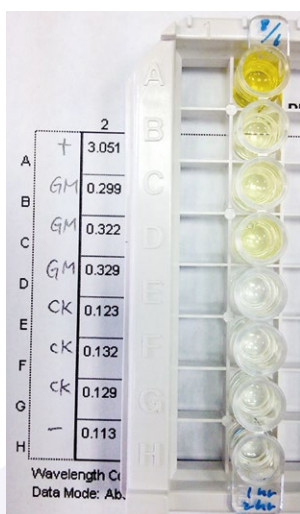


# 種子檢查技術強化

## Strengthening Seed Testing Technology

全方位滿足產業及政策推動所需之檢測技術與服務，作為產業發展重要基石，協助創造更具競爭力的種苗產業。

Comprehensive testing techniques and services that meet the needs of industry and policy promotion serve as an important cornerstones of industrial development and help create a more competitive seedling industry.



### 執行現況

#### Current Implementation

- 種子品質檢查業務之執行  
Execution of seed quality inspection and testing operations.
- 種苗病原檢測技術之研發及應用  
Research, development and application of seedling pathogen detection technique.
- 種子純度與特定性狀分子檢定技術之研究及開發  
Research and development of molecular testing technique for seed purity and specific traits.
- 基因轉殖植物種苗檢測技術之研發及執行  
Development and implementation of genetically modified seedling detection technique.



# 品種檢定技術

## Variety DUS Examination Techniques

統籌臺灣植物品種權檢定技術，推動植物品種檢定、品種侵權支援等相關技術開發與應用，積極與國際接軌，維護我國優良品種流通全球。

Coordinates the techniques for DUS Examination in Taiwan. Promotes the development and application of techniques and support variety infringement issues. TSIPS actively aligns with international standards to ensure the global distribution of Taiwan's superior plant varieties.



### 執行現況

#### Current Implementation

- 由農業部委派擔任臺灣植物品種權技術統籌機關  
Commissioned by the MOA as the coordinating authority for PVP techniques in Taiwan.
- 開發或修訂植物品種試驗檢定方法與品種性狀表  
Develop and revise plant variety testing guidelines.
- 執行植物新品種檢定作業  
Conduct DUS examinations for new plant variety.
- 協助並執行植物品種侵權證據保存作業  
Assist and execute tasks related to the preservation of evidence for plant variety infringement.







## 國際合作

### International Cooperation

種苗產業為高度全球流通性質，為拓展我國優良農產品之市場全球化，以技術面支撐、強化國際合作。

The seed industry is highly global circulation. In order to expand the market globalization of Taiwan's excellent agricultural products, TSIPS provides technical support and strengthens international cooperation.

### 執行現況

#### Current Implementation

ISTA、APSA國家授權代表

National authorized representative of ISTA and APSA.

臺灣與越南及歐盟簽署植物品種檢定合作備忘錄

Assist in signing memorandums of understanding on cooperation in DUS testing of plant variety protection with Vietnam and EU.

臺澳、臺泰、臺英、臺荷、臺日品種檢定技術交流與合作

Technical exchanges and cooperation on DUS testing of plant variety protection with Australia, Thailand, UK, the Netherlands and Japan.

植物品種選育技術國際合作

International cooperation on plant variety breeding technique.

# 建置優質品種選育、 種苗量產及供應體系

Establishment of High-Quality Variety Breeding,  
Seedling Production, and Supply System



## ● 技術創新 標準化作業

Technical Innovation and Standardized Operations

## ● 高品質、客製化

High Quality and Customized



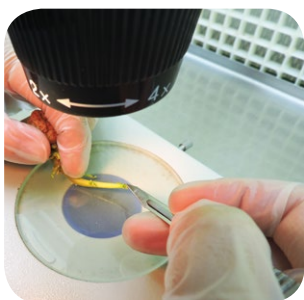


# 自動化生產流程及ISO品質驗證

Automated Production Process and ISO Quality Certification

導入國際標準之 ISO 驗證，以確保生產流程穩定性，引進自動化作業設備提高量產效率。

Introducing international standard ISO certification to ensure the stability of the production process, and apply automated operation equipment to improve mass production efficiency.



## Current Implementation

### 執行現況

#### 生產模式標準化 Standardization of production models

標準化作業流程通過ISO 9001品質驗證與種苗病害驗證作業，為生產之種苗品質把關  
The standardized operation process has passed ISO 9001 quality certification and seedling disease verification operations to ensure the quality of the seedlings produced.

#### 生產管理智慧化 Intelligent production management

開發應用組織培養生產管理與環境溯源整合系統，達到生產流程精準管理  
Develop an integrated system for tissue culture production management to achieve precise management of the production process.





## 開發精準選育創新技術與合作模式

Development of Innovative Technologies and Collaborative Models in Precision Breeding

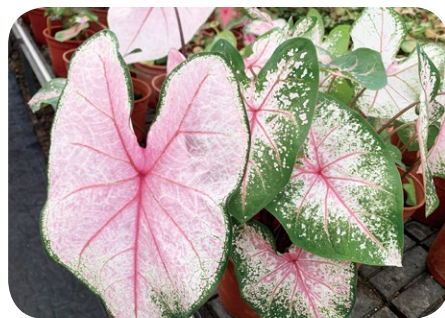
開發各項育種技術，結合作物品種改良，促成高效且精確的精準育種。  
推動參與式育種，促進產業交流與強化合作效益。

Develop various breeding technologies and integrates them with crop variety improvement to achieve efficient and precise breeding.

Promote participatory breeding, facilitating industry exchange and enhancing cooperative benefits.







## 執行現況

### 參與式育種 Participatory breeding

創新產官技術合作模式，透過育種分工，協同合作及引進分子輔助育種技術，建立育種協作平台

Innovating collaborative models between the government and industry, TSIPS establishes a breeding cooperation platform through division of breeding tasks, coordinated efforts, and the introduction of molecular-assisted breeding technologies.

### 優良耐病蔬菜花卉新品種 (系) 品種育成 Development of superior disease-resistant varieties

育成馬鈴薯、番茄、胡瓜、南瓜、彩葉芋、孤挺花及彩色海芋等優良品種，具商業優良性狀、抗耐病等特性，並積極投入苦瓜等瓜類育種工作，豐富市場種類

TSIPS has successfully developed superior varieties of potatoes, tomatoes, cucumbers, pumpkins, caladiums, amaryllises, and calla lilies, characterized by commercial quality traits and disease resistance. We actively involved in breeding bitter gourds and other gourds to diversify market varieties.

### 蔬菜韌性選育技術開發 Vegetable resilience breeding technology development

開發葫蘆科蔬菜耐熱育種篩選技術、抗病根砧育種、並配合分子輔助育種、小孢子組培技術，整合與建構新興育種技術，以因應氣候變遷環境，強化育種成效

TSIPS develops heat-tolerant breeding techniques for cucurbit vegetables, disease-resistant rootstock breeding, and integrates molecular-assisted breeding and microspore culture techniques. These efforts aim to enhance breeding effectiveness in response to climate change.





# 高效率雜糧採種 有機種子生產

## High-Efficiency Grain Seed Harvesting, Organic Seed Production

導入採種專用農機，穩定國內生產供應及進行人力訓練。

建置有機種子生產場域，提升種子品質與安全。

Deploy seed production specialized machinery to streamline grain seed harvesting, ensuring a stable domestic supply and conducting target workforce training.

Establish organic seed production field/facility to promote seed quality and safety.

### 執行現況

#### Current Implementation

##### 省工高效農機導入 Introduction of laborsaving and high-efficiency agricultural machinery

因應農業缺工問題，導入採種專用玉米去雄機，採收機以及低排放農機，建立示範及訓練場域

In response to the agricultural labor shortage, introduce corn detasseler, seed corn harvester, and low-emission agricultural machinery. Establish a demo and training site.

##### 場域生態化、有機化 Ecologization and organic transition of fields

建立雜糧作物友善環境耕作、有機採種生產模式，促進有機產業發展加速、與國內外有機規範接軌

Establish eco-friendly cultivation and organic seed production models for coarse grains, promote the acceleration of organic industry development, and align with domestic and international organic standards.



# 創新智能技術開發 與數位服務

Innovative Smart Technology Development  
and Digital Services

## 蝴蝶蘭品種影像辨識系統

選擇照片或拍攝

選擇檔案 Orchid1.png

預覽：



品種：OX Honey  
'OX1372'(牛記甜心)

排序：1 - 吻合特徵：99.5%

## 影像辨識、遠端環控 ●

Image Recognition and Remote Environmental Control

## 智能化、即時性 ●

Intelligent and Real-Time Solutions



# 影像辨識及AI導入

## Image Recognition and AI Integration

應用 AI 智能辨識，提昇種子檢測、品種檢定效能以減輕人力負擔。

Applying of AI intelligent identification to improve the efficiency of seed detection and DUS testing of PVP to reduce manpower burden.

### Current Implementation

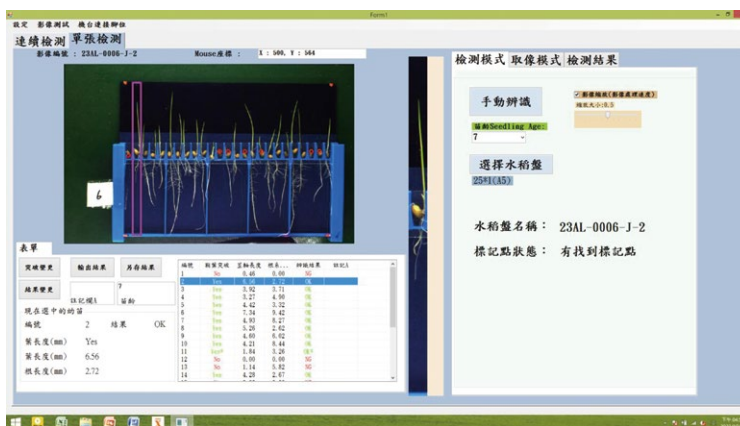
#### 執行現況

蝴蝶蘭品種辨識應用整合平臺建置已累積 1,067 個品種

1,067 varieties have been accumulated on the phalaenopsis variety identification and application integration platform.

影像辨識系統輔助種子潔淨度檢測及幼苗評鑑

Image recognition system assists seed cleanliness detection and seedling evaluation.

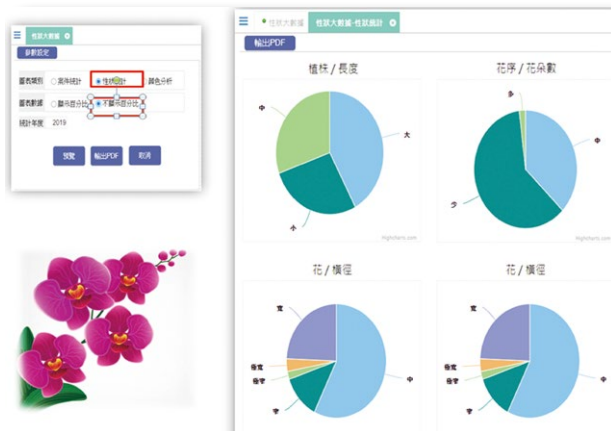




## 執行現況

作物栽培設施智能化建構  
Intelligent construction of  
crop cultivation facilities.

遠端環控倉貯系統  
Remote environmental control  
warehousing system.



## 自動化遠端監控

Automated Remote Monitoring

推動智慧農業發展，建置自動化環控設施、倉貯，提昇環境精準、即時控制。  
提昇栽培、倉貯品質。

Promote the development of smart agriculture, build automated environmental control facilities and warehousing, and improve precise and real-time environmental control. Improve cultivation and storage quality.



# 種苗產程智慧化

Smartization of Seedling Production Processes

推動產程智慧化，建置蔬菜生產管理、種子品質快速檢測等系統。

Promote the intelligentization of the production process and build systems for vegetable production management and rapid seed quality testing.

## 執行現況

### Current Implementation

建立蔬菜育苗智慧化產銷管理系統

Established an intelligent vegetable seedling production and sales management system for professional vegetable nurseries.

建構智能化作物管理設施

Constructing intelligent crop management facilities.

種子品質快速檢測系統

Seed quality rapid detection system.







## 數位服務平臺

### Digital Service Platform

利用數位服務平臺，擴大服務效能，協助種苗各項檢測服務、提升國內業者之商品能見度。

Utilize digital service platforms to enhance service efficiency, assist in various testing services for seedlings, and increase the visibility of domestic products.

## ● 推動產業創新

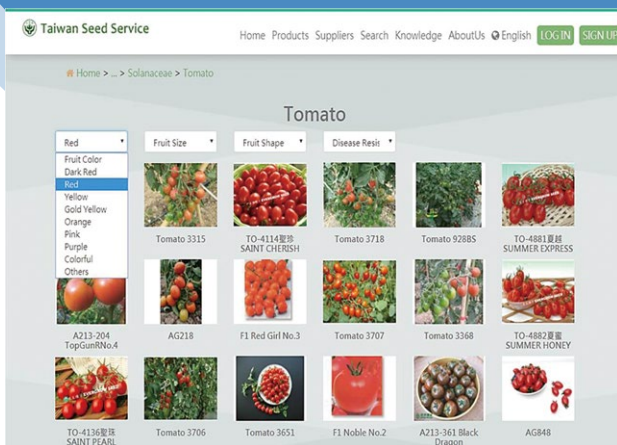
Promote Industry Innovation

## ● 升級產業環境

Upgrade Industry Environment

## ● 提升服務量能

Enhance Service Capacity



聯合行銷平台QR-code  
<https://tssb2b.tss.gov.tw>

## Current Implementation

### 執行現況

種苗檢測多元服務平台

Multi-service platform for seedling testing.

行銷平台推播國內業者之商品，提升商品能見度

The marketing platform promotes products from domestic companies to increase product visibility.





# 種苗加值技術跨域發展

Cross-Disciplinary Development of Seedling Value-Added Technology



## ● 在地合作、能量銜接

Local Cooperation and Connection

## ● 資源鏈結、開創新模式

Resource Linkage and Creation of New Models"



# 跨域種苗人才孵化器

Cross-Disciplinary Seedling Talent Incubator

人才培育講求跨域知識導入，提昇農業研究領域以外之跨界、跨域知識，孵化新種苗技術人才。

Talent training and teaching seek to introduce cross-disciplinary knowledge, enhance cross-border agricultural research fields and cross-disciplinary knowledge, and incubate new seedling technical talents.

## 執行現況

### Current Implementation

Bio-Open Lab支援種苗產業研發量能

A Bio-Open laboratory can be applied for use to support the R&D of the seed industry through technical collaboration.

辦理農民學院課程，提供系統性專業訓練

Organize Farmers' Academy courses to provide systematic professional training.





## 產業協作推動與交流

Promotion and Exchange of Industry Collaboration

本場提供種苗、技術及服務，積極跨入產業界並強化合作，提供 Open Lab 服務、協助優良品種之國際品種權保護及馬鈴薯、文心蘭、洋蔥、菊花等作物產業共同協力推動，共榮發展並促進產業成長。

TSIPS provides seedlings, technology, and services, actively engages with the industry, and strengthens cooperation. It offers Open Lab services, assists in the international variety rights protection of superior varieties, and jointly promotes the development of industries related to crops such as potatoes, oncidium orchids, onions, and chrysanthemums.

### 執行現況

#### Current Implementation

臺灣大豆產業策略聯盟

Taiwan Soybean industry Alliance.

臺灣馬鈴薯產銷策略聯盟

Taiwan Potato industry Alliance.

文心蘭業者外銷體系

Oncidium industry export sales system.

蘭協-國際品種權申請

Assist the Taiwan Orchid Growers Association (TOGA) in applying for international variety rights.

慈心基金會、田尾農會、恆春農會

Tse-Xin Foundation, Tianwei Farmers' Association, Hengchun Farmers' Association.







## 學研機構合作

Collaboration with Academic and Research Institutions

與學研機構進行多項技術開發，提昇基礎研究之應用性與補足應用科學之研究基礎。

Conduct multiple technological developments with academic and research institutions to enhance the applicability of basic research and supplement the research foundation of applied sciences.



## 執行現況

Current Implementation

與臺灣大學、中興大學、中央大學、屏東科技大學、中山醫學大學、亞蔬-世界蔬菜中心等單位進行多項技術開發與病原檢定等

Collaborated with National Taiwan University, National Chung Hsing University, National Central University, National Pingtung University of Science and Technology, Chung Shan Medical University, the World Vegetable Center, and other institutions on various technology development and pathogen detection projects.

## 執行現況

與中國醫藥大學合作，發展金皇石斛保健藥用價值

Collaborate with China Medical University to develop the health and medicinal value of *Dendrobium Taiseed Tosnobile*.

建立木瓜果膠萃取技術，開發高營養木瓜果凍產品製程

Establish papaya pectin extraction technology and develop a high-nutrition papaya jelly product process.

開發可可、木瓜等作物之高附加價值原料，應用於食品與美妝品中

Develop high-value-added ingredients from crops such as cocoa and papaya for application in food and beauty products.



## 跨域技術開發

Interdisciplinary Technology Development

跨領域技術合作，提高農產品附加價值，推動高質化產業。

Interdisciplinary technological collaboration to increase the added value of agricultural products.



# 十大核心業務

## Top 10 Core Tasks of TSIPS



本場服務時間：星期一至星期五 8:00-12:00與13:00-17:00

Service Hours : Monday to Friday 8:00 AM-12:00 PM and 1:00 PM-5:00 PM





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