Features of major Cavendish cultivars commercialized

**Tai-Chiao No.2**
- Semi-dwarf, wind tolerant and labor-saving.

**FORMOSANA**
- The true-to-type GCTCV-218. With moderate resistance (MR) to Foc TR4 and higher yield than other commercial Cavendish cultivars released in Taiwan. Currently it is also the major cultivar available for exporting the propagated tissue culture seedlings.

**Tai-Chiao No.5**
- The agronomic traits are similar to those of the elite cultivar “Pei-Chiao” in Taiwan, MR to TR4, and still being one of the dominant cultivars adopted locally.

**Tai-Chiao No.7**
- Featured with highly resistant reaction to TR4, good aroma and fruit quality.

**Tai-Chiao No.8**
- Not only pronounced with the inheritance of MR to TR4 and higher yield from its parent “FORMOSANA”, it is also superior to its parent in terms of less loss affected by corky disorder.

**Objectives of foundation**

Based on the principle of “using banana for nourishing banana”, Taiwan Banana Research Institute was founded in 1970 and dedicated to improving the banana production, marketing, and upgrading the development of Taiwanese banana industry.

**Variety improvement**

- Collecting 230 banana germplasm accessions from the world
- Breeding and selecting new banana cultivars (clones)
- Selection conducted mainly through somaclone variation scheme
- Selection for special function and ornamental use

**Technology for propagating healthy tissue culture seedlings**

- Supply of superior tissue culture seedlings which are characterized by its healthy and superior trait, resistant to TR4, high-yield, and the plant breeder’s right
- Tissue culture seedlings are propagated through the sophisticated ISO 9001 with certified SOP

**Organization chart**

Tai-Chiao No.2, FORMOSANA, Tai-Chiao No.5, Tai-Chiao No.7, Tai-Chiao No.8

**Initiation of proliferation tissue from the meristematic**

1. tissue excised with the growing point
2. Induction of adventitious buds
3. Multiplication of adventitious buds
4. Subculture
5. Root induction
6. Acclimatization of tissue culture seedlings in vitro

**Mass propagation of healthy tissue culture banana seedlings fulfilled with national healthy seedling certification system**

**Establishment of advanced facilities in the smart green house to harden tissue culture banana seedlings in good growing condition**
Common pests encountered in the field
(A) Fusarium wilt (B) freckle (C) Corm borer (D) Banana defected by thrips

Pest management and technical consultation
- Development and extension of bio-control and non-chemical products for managing pest of banana
- Consultation and diagnosis service of banana pest
- Guidance for safety use of agrochemical and compliance with traceability for Good Agriculture Product in Taiwan (TGAP)
- Releasing handouts or brochures related to the cultivation of banana or giving lectures to growers
- Conducting field trials for new products developed by any interested private sector.

Optimization of soil fertility management
- Set up the demonstration farm for optimizing application of fertilizer
- Give extension service and lecture of farm-based fertilizer management
- Provide plant nutrition and soil fertility analysis service

Cultivation technology of organic banana
- Qualification for certifying the production of organic banana
- Highlighted by four features, including superior fruit quality, eco-friendly trait food safety, and agro tourism
- Source of fresh banana for consumers to be satisfied with their concerns about healthy food and food safety
- Fully balanced with the ecology and environment in nature when managed in the farm to be good for the sustainability of banana industry

Selection, Classification, and Packing Procedures
- Harvesting and disposal
- Hanging the bunch
- Removing the bunch wrap and the sterilized flower
- Green washing
- Condensed milk
- Pasteurization
- Making the bouquet
- Packing for the market
- Packing for the trials
- Delivery

Technology of banana ripening and preservation through cold chain
- Pre-cooling
- Ripening
- Temperature-based peel degreening technology
- Cold chain preservation, shelf life extension and fruit quality improvement

Extension education and technology cooperation
- Cultivation technology for cooperative farm and consultation for its management
- Technical advice on banana ripening and freshness preservation
- OEM production of the tissue culture seedlings of various crops demanded
- Cooperation with private sectors in developing innovative materials and mechanical device needed for banana industry
- Engagement of pro-banana grower lectures and field demonstration activities
- Technical exchange locally and globally with interested units

Information sharing community
- Fan page of the Facebook
- Official website
- Banana industry quarterly bulletin

Highlighted by four features, including superior fruit quality, eco-friendly trait food safety, and agro tourism
Source of fresh banana for consumers to be satisfied with their concerns about healthy food and food safety
Fully balanced with the ecology and environment in nature when managed in the farm to be good for the sustainability of banana industry

Tai-Chiao No.2
- Semi-dwarf, wind tolerant and labor-saving.

FORMOSANA
- The true-to-type GCTCV-218. With moderate resistance (MR) to Foc TR4 and higher yield than other commercial Cavendish cultivars released in Taiwan. Currently it is also the major cultivar available for exporting the propagated tissue culture seedlings.

Tai-Chiao No.5
- The agronomic traits are similar to those of the elite cultivar “Pei-Chiao” in Taiwan, MR to TR4, and still being one of the dominant cultivars adopted locally.

Tai-Chiao No.7
- Featured with highly resistant reaction to TR4, good aroma and fruit quality.

Tai-Chiao No.8
- Not only pronounced with the inheritance of MR to TR4 and higher yield from its parent “FORMOSANA”, it is also superior to its parent in terms of less loss affected by corky disorder.