

## 稻 作

稻作改良主要工作為水稻品種改良及栽培技術之研究與推廣。品種改良方面，以選育良質、豐產、抗病蟲害及特殊用途之優良水稻品種為目標。

在良質米育種方面，歷年來先後育成‘台梗4號’、‘台梗6號’、‘台梗10號’、‘台梗16號’、水稻‘花蓮19號’、水稻‘花蓮20號’及水稻‘花蓮21號’等7個水稻品種。其中‘台梗4號’為香米品種，米飯清香，具有特殊風味；‘台梗16號’豐產、食味佳、強稈、抗褐飛蝨，年栽培面積曾高達2.9萬公頃，佔當年全國稻作面積9.6%，頗受稻農及消費者歡迎；水稻‘花蓮21號’具有省肥、抗褐飛蝨、好管理及米飯食味佳等特性，與‘台梗16號’同列為優良水稻推薦品種。

在多元化利用水稻品種育種方面，近年已先後育成紅香糯新品種水稻‘花蓮22號’、觀賞紫稻‘花蓮23號’、高蛋白機能米‘花蓮24號’及低蛋白機能米‘花蓮25號’等多樣化水稻新品種，可促進國內稻作產業之多元化利用及發展。



### Rice

The objectives involving rice are to improve rice varieties and to facilitate the research and extension of cultivation technologies. Concerning the improvement of rice varieties, our goal is to breed high-quality, high-yield, disease-and-pest-resistant rice varieties, as well as those for special purposes.

To date, seven excellent rice varieties have been cultivated: ‘Taikeng No. 4’, ‘Taikeng No. 6’, ‘Taikeng No. 10’, ‘Taikeng No. 16’, ‘Hualien No. 19’, ‘Hualien No. 20’, and ‘Hualien No. 21’. ‘Taikeng No. 4’ is an aromatic rice variety that features a fresh fragrance and a special flavor; ‘Taikeng No. 16’ features high yield, favorable taste, strong stalk, and is resistant to brown planthoppers. With 29,000 ha in annual cultivation area, ‘Taikeng No. 16’ once accounted for 9.6% of the national rice cultivation and became popular among farmers and consumers. ‘Hualien No. 21’ features characteristics such as low fertilizer demand, high resistance to brown planthopper, easy management, and favorable taste.



Regarding the breeding of diversified rice varieties in recent years, results include 'Hualien No. 22' (red aromatic glutinous rice), 'Hualien No. 23' (with beautiful purple leaves), 'Hualien No. 24' (high-protein rice), and 'Hualien No. 25' (low-protein rice), all of which promote the diversified use and development of rice in the domestic rice cultivation industry.

1. 高蛋白水稻 '花蓮24號' 植株  
Plant appearance of high grain protein content variety Rice 'Hualien No. 24' .
2. 低蛋白水稻 '花蓮25號' 糙米  
Brown rice appearance of low grain protein content rice variety Rice 'Hualien No. 25' .
3. 優良水稻推薦品種水稻 '花蓮21號'  
Rice 'Hualien No. 21' is a good quality rice variety.
4. 水稻 '花蓮22號' 糙米外觀呈現亮麗艷紅色澤，米飯具香味  
The brown rice of 'Hualien No. 22' is bright red in color and produces a fresh fragrance when cooked.



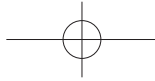


為提昇本區稻米品質，本場致力於改善稻米米粒外觀及米飯食味之研究，先後已購置米飯食味計及米粒外觀判別器等多項米質分析儀器，除做為場內水稻育種及栽培技術研究使用外，同時免費提供轄區水稻農友稻米品質分析服務，期全面提高本區稻米品質。

花蓮地區環境純淨無工業污染，適宜有機水稻發展，本場致力於水稻有機栽培管理技術研究，研發以稻田施用米糠防治雜草技術，有效降低有機稻田生育初期雜草危害，並建立水稻有機栽培體系，輔導花蓮及宜蘭地區種植有機水稻。隨著轄區有機水稻栽培面積日漸擴展，年栽培面積已超過 900 公頃，對於提高農民收益及農業生態環境改善均具正面效果。

此外，花蓮地區原住民部落蘊藏豐富之原生稻種原，本場蒐集及保存光復香糯、陸稻等原生稻種原，進行品種純化及應用之研究，並輔導農民改進栽培管理技術，以進一步利用此多樣化種原。🌾

To enhance the quality of rice in this district, we are devoted to performing research that enables us to improve the appearance and eating quality of our rice. We have purchased numerous types of rice quality analysis equipment, such as rice grain composition analyzers and rice grain sorters. These rice quality analysis devices are used not only in our facility for rice growing and facilitation



of research and usage of rice cultivation techniques, but also to assist local rice farmers for conducting rice quality analysis for them at no charge. The goal is to elevate the overall quality of rice in the district.

Because the Hualien environment is free from industrial pollution, it is suitable for developing organic rice. Our station is dedicated to the research of management techniques used in the cultivation of organic rice.

The research of rice bran to be used as weed control for paddy fields. These measures effectively reduce weed hazards during the early stages of organic crop breeding, facilitate the development of an organic rice cultivation system, and enable the counseling of organic crop growing in the Hualien and Yilan regions. Organic rice cultivation areas in our jurisdiction have observed gradual growth over the years, and annual cultivation areas have now reached more than 900 ha measures exhibit a positive effect on increasing farmers' income and improving the agricultural and ecological environment.

The aboriginal tribes in the Hualien region have abundant stocks of native rice germ resources. Therefore, we performed research on varietal purification and application using native rice breeds such as Kwan-Fu aromatic rice and upland rice that we have collected and preserved. In addition, we helped farmers improve rice cultivation management techniques to maximize the use of diverse rice varieties. 🌾



5. 觀賞紫稻 '花蓮23號' 可應用於稻田彩繪

Rice 'Hualien No. 23' (a beautiful variety of purple rice) can be used to decorate paddy fields.

6. 米糠除草試驗田區，圖片田埂右側為試驗區、左側為對照區

Rice bran weeding experiment area, where the right and left depict the experimental and control areas, respectively.

6A. 施用米糠於水田（右），利用其分解發酵產生的酸和熱，抑制雜草生長  
Use of rice bran in paddy fields (right), where the acid and heat produced from rice bran decomposition and fermentation inhibit weed growth.

6B. 一個月後右側試驗區雜草防治效果顯著  
Experimental area (right) exhibiting positive weed control results 1 month after treatment.