

## ACTIVITIES OF AGRICULTURAL EXTENSION IN 1990

### Guidance of Farmers' Associations on Agricultural Extension Works

For strengthening the agricultural extension activities, 3,621 study groups including 37,898 participants were organized by the local Farmers' Associations (FAs) through the assistance of this station. These study groups were consisted of 1,841 agricultural groups (with 20,206 participating farmers), 1,515 home economic groups (with 15,385 participating farm housewives), and 265 4-H club groups (with 2,037 rural youths) (Table 1).

Table 1. Groups and persons of the 80,000 core farmers in Taichung area.

County/City	Agriculture		Home Economic		4-H Club		Total	
	G	P	G	P	G	P	G	P
Taichung city	48	360	44	339	13	124	105	823
Taichung county	491	5,123	323	3,158	96	730	910	9,011
Changhua county	795	8,802	720	7,668	79	715	1,603	17,185
Nantou county	507	5,921	419	4,220	77	738	1,003	10,879
<b>Total</b>	<b>1,841</b>	<b>20,206</b>	<b>1,515</b>	<b>15,385</b>	<b>265</b>	<b>2307</b>	<b>3,621</b>	<b>37,898</b>

\* G: No. of groups; P: No. of persons.

Through the cooperation of the local FAs and Taichung DAIS, 41,472 agricultural extension programs were carried out and so that totally 1,251,710 participating farmers got advantage from those programs (Table 2). This station assisted the FAs to carry out the activities of training courses, 4-H club, home economics, planning of crop production, marketing of farm products, and improving living environments, etc. Approximately, NT\$ 576 millions were used for extension works on 60 township and 4 county level FAs in 1990 (Table 3). The amount of expense was increased in 25% compared with that in last year.

Table 2. The accomplishments of FAs on agricultural extension education in Taichung area.

Extension Program	Agriculture	4-H	Home economics	Total
No. of extension programs	7,660	4,046	29,766	41,472
No. of interviewed household	89,272	87,530	58,936	196,788
No. of participating trainees	128,668	46,266	292,176	476,110
No. of participants for meeting	90,576	27,262	301,906	419,748
No. of persons participating extension activities	79,974	74,842	54,248	159,064
No. of extension agents	282	76	73	431
No. of study groups	4,820	1,679	693	7,192
<b>Total persons in groups</b>	<b>45,966</b>	<b>13,850</b>	<b>28,258</b>	<b>88,074</b>

Table 3. The amount of expense for agricultural extension and number of FA's members in Taichung areas.

County/City	Farmers' associations	Full members	Associated members	Business profit	Expense for agri. extension
Taichung county	22	62,931	47,082	512,770	222,238
Taichung city	1	12,207	14,346	45,120	19,582
Changhua county	27	113,269	25,826	399,941	167,795
Nantou county	14	64,813	19,862	269,040	166,188
<b>Total</b>	<b>64</b>	<b>253,220</b>	<b>107,116</b>	<b>1,226,871</b>	<b>575,803</b>

### Activities of Farmer's Services Center

For strengthening the functions of Farmer's Service Center in this station, a telephone (with the number 04-852-7455) and a fax machine (04-852-5841) were installed in the Center last year. Several significant functions of Farmer's Service Center can be drawn that were: 1) Totally 497 farmer's letters/questions were replied and answered. 2) A total of 198,330 extension bulletins and 67 lots of seeds requested were offered by this station. 3) 263 soil samples collected by the farmers were analyzed and the results from soil analysis were obtained by the respective farmers. 4) 2,313 field demonstrations were held to introduce the new cultivated techniques and/or elite varieties to the farmers. 5) In addition, there were 12,233 visitors including 506 foreign guests visiting this station.

### Agricultural Training

The program of 'on the job training' was designed to promote the professional skill of extension workers of FAs and to update their knowledge and technology for extension work. There were 396 extension workers who received these training courses at the Training Center of this station in this year. Subject matter of training courses for the rural youth was held to transfer the hydroponic culture and protected horticulture to the young farmers, so that 224 rural youths completed the training course in 1990. To enhance the possibility on agricultural technology exchange between the R.O.C. and the other nations, a training course of "horticulture and ornamental crops" was established for four persons from foreign countries. This training program was sponsored by the Committee of International Technical Cooperation (CITC). In Taichung district the farmer's training courses were also organized by FAs for their memberships. In total 431 persons (counted based on attendances) were arranged as the teachers of these training courses (Table 4).

Table 4. Activities of agricultural training center in 1990.

Training activities	Classes	Trainees
On the job training	13	396
Training on special subjects	6	224
Training for foreigner	1	4
Co-organized training	431	18077

### Agricultural Communication

The published materials of this station have been widely distributed. A total of 92,000 copies of 'Taichung District Agricultural Extension Newsletters, (Quarterly)', 12,000 copies of 'Taichung District Agricultural Extension Bulletins, (Monthly)', and 'Taichung DAIS Weekly News' were published and sent directly to farmers or any person who requested with free charge. Additionally, three kinds of video materials and one slide material were produced in this station. In cooperation with newspapers, TV and radio stations, 21 video and 63 radio tapes, as well as 24 pieces of newspaper information were delivered from this station. More than 95% of these new media were accepted for broadcasting (Table 5).

Table 5. Agricultural information delivered to news media from Taichung DAIS in 1990.

Media	No. of released	% of accepted
Video	21	95
Radio	63	98
Newspaper	24	95

### Home Economic Extension

The major activities of home economic extension have been emphasized on both the development of rural community and the improvement of rural living. With the cooperation of home economic specialists of FAs, 54 villages in Taichung area were chosen as the demonstration villages and farmers were guided to improve their living environments. Furthermore, 14 villages were selected to improve farmer's garbage handling methods and to instruct them how to prepare home-make compost (Table 6).

Table 6. No. of villages accomplished on home economic extension in Taichung area.

County/City	Environmental improvement (villages)	Garbage handling (villages)
Taichung county	20	9
Changhua county	21	5
Nantou county	12	3
Taichung city	1	-
Total	54	17

### Graded Packaging and Joint Marketing for Fruits and Vegetables

In order to reduce the production cost, farmers' groups were organized and guided to participate in joint-purchase and to cooperate using the common cultivation equipment, packaging materials, facilities, and transportation vehicles. Eventually, 61 farmer's groups were generated for production and marketing in 1990 (Table 7). In

addition, three training courses on the graded packaging for fruits and vegetables were held in Taichung district this year. At the same time, the trade-mark was established and joint-marketing were promoted.

Table 7. Number of farmers' groups, memberships and acreage of handling for promoting joint marketing in Taichung district.

County	No. of groups	No. of memberships	Acreage (ha)
Taichung	15	243	306.4
Changhua	14	284	145.1
Nantou	32	435	582.1
Total	61	962	1,033.6

### Integrated Planning of Farmland Utilization

Based on the environmental characteristics and actual needs of each area, the integrated planning of farmland utilization was organized and planned by the agencies of provincial and county government. In order to rearrange the agricultural production function, the planning was designed and executed by the local farmers, farmers' association, local government, and the related experts. For the consideration of farmland condition and cropping patterns as well as the principles of comparative advantage, the planning was designed to be accepted and acknowledged by the farmers. The construction facilities, utilization of farmland could be gradually adjusted by the farmers. The cropping patterns and target crops for each county in Taichung district were selected and suggested in Table 8.

### Entrusted and Joint Farming Operation

In order to prevent the over investment on agricultural production and to reduce the production cost, the entrusted and joint farming operation were strengthened for guiding farmers on the utilization of agricultural machine. Promoting such entrusted farming operation could also lead to the expansion of the farming scale. Totally 22 entrusted farming teams and 642.3 ha of farmland were entrusted in Taichung district in 1990 (Table 9).

Table 8. Integrated planning of farmland utilization in Taichung district.

County	Village & town	Acreage (ha)	Target crop
Nantou	Nan-Tou City	410	Fruit vegetable
	Min-Chien Hsiang	575	High quality rice, vegetables, & sugarcane
Changhua	Chang-Hua City	379	Vegetables
	Hua-Tan Hsiang	590	Carambolas and bamboo shoot
	Yung-Ching Hsiang	304	Vegetable and ornamental plants
	Tien-Wei Hsiang	250	Vegetable and ornamental plants
	Tien-Chung Chen	291	Ornamental plants, vegetables, and livestock
	Pu-Yen Hsiang	238	Grapes
	Fang-Wun Hsiang	920	Upland crop and cantaloupe
Taichung	Chin-Shui Chen	115	Forage crops, sweet potato, and radish
	Da-Chia Chen	139	Vegetables
	Tan-Tze Hsiang	300	Bamboo shoot and fruit
	Hou-li Hsiang	150	Ornamental plants and potato
	Wai-Pu Hsiang	215	Potato and forage crops
	Hsin-Sheh Hsiang	268	Grapes and mango
	Da-An Hsiang	374	Watermelon, bitter gourd, scallion, dairy, and forage crops

Table 9. Achievements of the entrusted farming operation at Taichung district in 1990.

County	Entrusted farming team	Acreage for entrusted farming (ha)
Taichung	13	385.1
Changhua	7	186.8
Nantou	2	70.4
Total	22	642.3