SOUTH CHINA SUBTROPICAL PRODUCTS RESEARCH INSTITUTE

HAS FOUND NEW APPROACH TOWARD THE INTEGRATION OF
RESEARCH, EDUCATION, AND PRODUCTION

- COMMUNIST CHINA -

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[Following is a translation of an article by Hainan Island
staff reporters Chang Ch'ang-hai and Ch'iu T'ing in the
Chinese-language newspaper Kuang-ming Jih-pao, Peiping,
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In order to fully carry out the scientific-research-for-
production policy, the South China Subtropical Products Research Insti-
tute has moved from Canton, which is far away from places where sub-
tropical products are produced, to Hainan Island which is the center of
such products in order to build a solid foundation for China's first
higher educational institute for the training of tropical products
scientific technicians. The Institute has established a 5,000 mou
experimental base and some intermediate plants. It is now busily
engaged in the construction of a modern model farm with 25,000 mou
of cultivated land, which are designed to systematically integrate
scientific research, education, and production labor from the content
of individual work to the form of organization, to mutually promote
the progress of various works, to speed development, and to demonstrate
the "leadership-obedience-integration" policy to scientific research
organizations.

A. Based at Tan Hsien, Treasure Island Is The New Home
   Due to the fact that some people in the Institute had put too
much stress on the material conditions of city life, the water and
electricity supply, the convenience of transportation, etc., the
South-China Subtropical Products Research Institute, ever since
its establishment at Canton in 1954, has been too far away from actual
production, reality, and labor movement. The individualism of the
capitalistic class was growing among the workers. High research
officials were not seen on personal inspection tours, production
technology was ignored, and too much emphasis was given to the so-
called advanced scientific theories. During the period of the last
four to five years, greenhouses were the primary experimental field,
young plants raised in little pots were the major research objects,
the experimental farms, scattered at various places, were in a stage
of near-abandon because of lack of frequent inspection and proper
management. In general, the development was slow.
Through the rectification campaign and anti-rightist struggle, people in the whole institute now realize that the most important and the most basic conditions for the development of an agricultural research institute are the leadership of the Party, the people's line, and the establishment of roots in the center of production. Only with these three conditions fulfilled will the supply of water and electricity, instruments and equipments have meaning and attachment. Although some difficulties may be temporarily encountered by the group, these practical material conditions will be solved through their own efforts. Based on these far-sighted views and the momentum of the great forward leap movement, the South China Subtropical products Research Institute was determined, in April of 1958, to be moved to Tan Hsien in Hainan Island, the production center of tropical products. Furthermore, 30% of the research workers, and 50% of administrative personnel were assigned to various national farms and agricultural institutes to undergo labor training. This was the point at which the Institute was fundamentally transformed. After having moved to the center of production, the Institute has its roots established in this treasure island of Tan Hsien and is now striding forward along the route of proletariat scientific research.

B. Research Personnel Manage the Production Base

There was some discussion and arguments regarding the size of the individual base and the method of management right after the institute was moved to this island. Some believed that the experimental bases should be small in size because large bases would dissipate one's efforts, which would, in turn, make management a tough job. The Party Secretary in the Institute believes that, although we wouldn't want the size of the experimental bases as large as those state-owned farms, but they should be sufficiently large in order that these agricultural experimental lands can even more strongly demonstrate the properties of their classes and their characteristics as a model. Furthermore, tropical plants usually take several years to grow and the planting arrangement should be widely scattered. Therefore, a large area is required to satisfy the demands of many experiments. In addition, finishing process also needs rather large space. For instance, a small palm coir finishing plant will require 3,000 mou experimental land. Based on this line of thinking, the Institute has, so far, continuously constructed many 5,000 mou experimental bases and is now busily engaged in the construction of a 25,000 mou modern model farm.

Should the experimental bases be managed by research personnel or should someone else be assigned to take charge? Some people believed that a special production management division or laboratory was the best approach; but trial results have shown that this is not the best way to give better cooperation to the research personnel and workers, nor is it the most proper method of correlating theories with practice. The major disadvantages of this arrangement are that the production
team, which is not under the direction of research group, lacks proper guidance, and experimental set-ups arranged by the team cannot satisfy the requirements of the research group; and all the research arrangements needed by the research groups would have to go through the production team first. More important is that, although the research personnel have been moved to the island, they are not directly associated with the experimental bases. In order to solve this contradictory problem, they finally decided to give the responsibility to the research personnel. The production teams of each experimental base will be led by the appropriate research groups. By this arrangement, the research personnel have become the chiefs of the bases as well as the technicians of the groups. They are the ones who are responsible for the progress and development of the bases.

This management set-up has had fine results after more than one year in operation. By now, the research workers have really contacted the research bases, gotten close to their research objects and shouldered the responsibility of management. Their plans can now be fully carried out with their personal supervision and they may now go to the experimental bases to deal with their research objects everyday. This arrangement not only gives research workers more knowledge on actual production, but also greatly raises the quality of their research work. When research personnel are integrated in management, they will have better opportunity to contact the workers and to have their thoughts reformed. Insofar as the workers are concerned, they will have more chances to learn scientific know-how. Furthermore, when research personnel are assigned to the management of various production teams, they will be the leaders both politically and administratively. This will give them a chance to improve the degree of wakening of their political thinking and exercise their ability for group leadership.

C. The Initial Formation of A Tropical Products Educational Network

In order to satisfy the demand of our national construction development, people of the Institute, with the active leadership and support from upper political and Party organizations, have used their bare hands and the spirit of self-survival to establish China's first tropical products research institute.

Based on the practical situation of the Institute, research personnel have been taking over the responsibility of teaching mathematics in order to solve the problem of teacher shortage. Twenty-seven of the 31 courses offered by the institute last year were taught by research workers and 2/3 of the total research workers have shared the teaching responsibility.

During a period of little more than one year, the Institute, which has been given the correct Party leadership, has had the frame established in the wave of the great forward leap. The Institute, with three specialized branches, which include tropical products and their finishing processes, now has more than two hundred main branch students. The Institute has also organized various training classes and graduated
more than 300 technical students. The teaching standards of the institute are now continuously rising. Last semester's final result was peaked at 75% (the final grade of the first semester was 56%). However, the results of the test conducted by the Party Committee on organic chemistry for all three sections of the sophomore class has shown a peak of 88.7%. Based on practical demand, the Institute is planning to open three more specialized branches next semester, to include farming mechanization and electrification, tropical agriculture, and tropical pasture and to admit 700 freshmen. To meet the requirement of this expansion, the Institute is now busily preparing equipment, curricula, outlines, and teaching materials for the new branches and new courses.

Within the Institute, kindergarten, elementary school and high school are also available. A new intermediate level tropical products technical school for overseas Chinese youngsters (with a capacity of 1,000 students) will be in operation this fall. A college for after-work students has opened its session on 13 April of this year with more than 200 students. The development around the Institute shows that an educational network, with tropical products as its major subject, has been in the forming within the framework of the institute, and it will be further strengthened and advanced.

D. Revolutionized Organization -- "Unified Leadership, Total Responsibility, Triple Integration"

After the Institute was moved to this island, the closer link between theory and practical production has made the old organization obsolete. It clearly demonstrates that old organizations which were based on theory only and lacked the ability of production management, cannot very well satisfy the requirements of complex research and basic management. It was based on these observations that the Party Committee decided to overhaul the entire organization of the Institute. During the establishment process of the new organization, products were used as the main objects of systematical study and emphasis was also given to the principle of theory development. The old approach, using theory as the sole basis, was abolished. The new system uses tasks to lead theory and research tie-in with production. Such form of organization is bound to be more solid and satisfactory. Following the establishment of experimental bases, model farms, and educational networks and the adoption of the spirit of "One primary object, double follow-up goals and triple integration," the men in the Institute further created the method of "Unified leadership, total responsibility, and triple integration." They have organizationally combined institute, college, and large model farms into a single unit.

The phrase "unified leadership, total responsibility, and triple integration" means: under the unified leadership of the Party authority, the institute, the college, and the model farms will take over all the works on scientific research, education, production demonstration and promotion of research results, so that the integration of scientific
research, education, and production labor can be put into effect. Looking from the organizational point of view, the Institute, the college, and the farms will have a unified leadership and practically specialized field of operation. The Party Committee, Personnel Department, and the Administration Department will handle all affairs from the Institute, the College and the farms. The Party's First Secretary in the organization, the Superintendent of the Institute and the Dean of the College will be one person. The Party Committee will be divided into four combat lines, namely, research, education, administration, and party activity leading the respective works in the Institute, the College, and the farms. All the production divisions and shops in the experimental bases and the model farms will be guided specially and separately by the respective research divisions. The education departments of the Institute and the College are put in charge of all the education and training work and evening classes in the college and attached schools. The various research divisions in the Institute and the various education divisions in the college are actually the two faces of the same organizations. Each division has two groups, namely research group and education group. Personnel inside the division can be shifted freely, but the relative number of personnel on the same job is fixed. They are responsible for the development of research and training. Each division has three directors and the office of the division also has three secretaries, each of which is specially assigned to be in charge of thought, research, education, and production. The different courses offered in the college have different ways of management: political courses are under the control of the Party Committee's Theoretical Teaching Division; the Teaching and Research Division, which is led by the Department of Education, is responsible for the teaching of mathematics, physics, physical education, and physical labor courses; botany courses are arranged by staff of the Botanical Garden of the Research Institute; staff members in the Scientific Information Group of the Research Institute are responsible for the teaching of foreign languages; special teaching and research groups, which are led by the respective research divisions of each department, are formed to take care of the fundamental specialized courses, and higher specialized courses are completely the responsibility of each respective teaching division inside the Research Department and are taught by full time specialists. Due to the different requirements of teaching and research, teaching equipment, do-it-yourself farms, and some laboratories are separated despite that fact that do-it-yourself plants and experimental plants are integrated. For scientific research activities, both professors and students are allowed to use the facilities of the Research Institute.

Such arrangement not only saves one-third of the manpower and materials and satisfies the principle of diligent and economical management, but, more important, it has systematically and truly integrated both from the point of actual content and from the point of organization.
scientific research, education, and production labor. Although the Institute, the College, and the plants and farms all have their individual principle tasks, research and teaching are the major responsibility of everyone. In the past, the Institute neither had the responsibility nor did it care about the business of training and education. However, now the situation is different. Since the responsibility has been put on their shoulders, everyone in the Institute has been deeply concerned with the progress of the College. Senior research members have promised to bring up new faculty members in the shortest possible period. Those who temporarily have no teaching responsibility are actively participating in the Training Division's preparation works. The Party's Secretary, the Dean of the College and the departmental heads are also frequently joining in teaching activities. Since last April, they have actually joined individual classes and to act as leaders of them. The relatively fixed responsibilities of research and teaching faculties plus the periodical exchange system have constantly improved the efficiency and quality of staff work. After participating in research work for a certain length of time, research workers will find that teaching enables them to systemically put the results of their research activities into theory. Furthermore, it serves as a checking step for research and converts teaching duty as part of the research project. It is through such teaching activities that the promotion of technological revolution is benefited; for instance, the rehearsal and preparatory sessions are actually knowledge discussion meetings. It is through those discussions that one can adjust and correct his own point of view. The program which requires teachers to take part in research works within the unified research plan has, in fact, strengthened the power of research and given chances to teachers to improve themselves because even a basic course instructor has to do some research. The modern model farms not only give examples for the promotion of new technology, but also offer the best working and practice facilities for research and teaching. One example is that students not only can participate in the labor activities in the nearby state-owned farms and people's communes, but also are allowed to take part in various labor activities and conduct practical teaching at the experimental bases according to the needs from the schools. Furthermore, students may take part in certain research activities ranging from the most fundamental operation to individual research work in other departments.

E. The Power of Triple Integration, the Model of Science City

Under the guidance of the light of the general line, this one-year-old integration approach has demonstrated its tremendous power by boosting the accomplishment of this Institute within a very short period of time. One of the examples is that only 16.2% of the 37 completed research topics in 1956 was able to be used in actual production; but in 1958, 92% of the 50 topics completed have been used in production. Furthermore, the project for 1959 was completed
a month and a half ahead of schedule, a total of 94 topics and 89 scientific research reports were completed, the percentage of these papers being used in actual production reached 93.6%. There is a pair of scrolls at the door of the "Hung-chuan Exhibition" which reads as follows:

Yesterday I regret I mistakenly joined the wrong capitalistic way of research; blinded by so-called authority and foreign superiority, I shut the door and studied all the time, nothing being accomplished.

But today I am happy I have gotten on the proletariat scientific avenue; combined with production and reality, we effect great achievement once getting into the act.

You found very little activities in front of the gate when the Institute was located at Canton; but now at this new location, the activity has become so busy that the Institute is gradually becoming the scientific and educational center of subtropical products. More recently, a complex operation station, formed by more than 40 researchers from more than ten concerned laboratories of the Academia Sinica, was established here for the purpose of joint research. The Institute has been an attraction for foreign and domestic visitors. The number in the first quarter of this year was over 1,500 persons; and 38 students in ten groups from colleges and universities have come to the Institute for advanced study. Twenty-one of them still remain here.

After having moved to this production center, the South China Subtropical Products Research Institute has erected 20,000 square meters of new buildings in bushes and jungles, and 20,000 to 30,000 square meters more will be constructed this year. Besides experimental bases (factories), model farms and the networks of educational facilities, the Institute now has farms of secondary foods, factories for bricks, tiles, limestone, and repairing, etc., as production and welfare organizations serving research, education and the members of the Institute. Furthermore, the whole plan is progressing rapidly. This is a scientific and educational organization and the base of tropical products, and it is also a basic form of society. At the present time, this place is being called the "Village of Treasure Island," but tomorrow it will become "The City of The Treasure Island." It is the scientific and cultural city of China's tropical products, and it will contribute its great power in the future development of our tropical resources.