

QUEST FOR RELEVANCE

THIRD ANNUAL REPORT
SCHOOL YEAR, 1972-1973

Mountain State Agricultural College
La Trinidad, Benguet
Philippines

BRUNO M. SANTOS
President

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QUEST FOR RELEVANCE

T H I R D
ANNUAL REPORT
SCHOOL YEAR 1972 - 1973

MOUNTAIN STATE AGRICULTURAL COLLEGE
La Trinidad, Benguet B - 210
Philippines

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BRUNO M. SANTOS
President

Republic of the Philippines
MOUNTAIN STATE AGRICULTURAL COLLEGE
La Trinidad, Benguet

August 6, 1973

His Excellency
Ferdinand E. Marcos
President of the Philippines
Malacañang, Manila

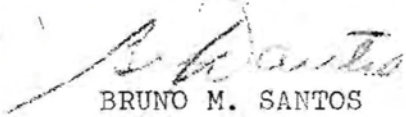
Thru the Honorable
The Secretary of Education and Culture
As Chairman, MSAC Board of Trustees
Manila

S i r :

I have the honor to submit the ANNUAL REPORT of the Mountain State Agricultural College for the school year 1972-1973.

The report is entitled: "QUEST FOR RELEVANCE" to underscore the direction to which the College addressed itself during the school year under review in a determined effort to make its various programs, projects and activities more socio-economically meaningful, relevant and responsive to the needs of development in the province and the whole country.

Very respectfully,


BRUNO M. SANTOS
President

MSAC ANNUAL REPORT
SCHOOL YEAR 1972-1973

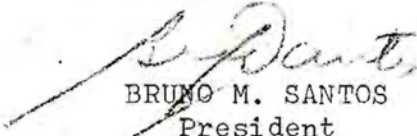
P R E F A C E

The accompanying ANNUAL REPORT is the third such report on the operations of the Mountain State Agricultural College to be submitted by the College President to His Excellency the President of the Philippines pursuant to the provisions of R. A. 5923 which made the school a corporate educational institution.

The Report is titled: "QUEST FOR RELEVANCE" to underscore the direction and continuing effort exerted by the College in making its various academic programs, production projects, researches, and extension activities more socially and economically meaningful to the people. The instructional innovations introduced and the strategies of administration and supervision adopted were all designed to more realistically gear and make the various programs and projects of the College relevant to the needs and demand for economic and social development within its service area.

It was the unanimous belief of the faculty that if the College is to maximize its contributions to the overall development of the country and produce significant impacts on the social and economic conditions of the people of the provinces which it serves, it must start producing these impacts upon its students and their families. Hence, the first target of the innovative practices introduced during the school year under report were those problems related or pertaining to course contents and procedures in agricultural instruction and the management practices used in the production projects and supervised farming programs of students.

The belief of the faculty has been more than justified by the outcomes.


BRUNO M. SANTOS
President

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O V E R V I E W

School year 1972-1973 differed from previous school years in that it was greatly affected and influenced by two historically significant events, namely: (1) the July-August, 1972 flood which inundated for 40 days the Central Luzon provinces and the lake towns of Rizal and Laguna, and caused killer-landslides in Baguio City and Benguet province, and (2) the proclamation of martial law for the entire country on September 21, 1972.

The first event was catastrophic. It not only caused the suspension of classes for two weeks but also completely destroyed the standing crops of the College at the time valued at P120,000. It also eroded, carried away or covered with stones and sand approximately three hectares of the school farm along the Balili river resulting in a property loss or damage of P500,000.00, more or less.

The second event further caused interruptions in the academic and production programs of the College for another three weeks, from September 25 to October 13, 1972, resulting in additional losses in crops that were abandoned or neglected during the suspension of classes. Notwithstanding the disruptions and the losses and damages sustained by the College and students as a consequence of the two events, there were positive

impacts produced upon the students, faculty and employees in terms of social attitudes, behavior and increased awareness of their social duties and responsibilities which more than compensate for the losses. Those changes, it is believed, were the results mainly of the constructive, reformatory and restitutive intents of Proclamation No. 1081, and are reflected in the outcomes of the various programs, projects and activities. Notable among these outcomes were:

1. Increased and intensified production activities resulting in better agricultural skills training for students and a gross production of approximately ₱500,000 from which the College realized a net share of ₱98,613.22. This net income is more than double the net school income in school year 1971-1972.
2. More productive use of leisure time by students, teachers, employees and officials who all participated in the food production campaign and beautification drive started by the First Lady.
3. Virtual elimination of disciplinary cases among students, teachers and employees, and their transformation into model citizens of the community.
4. Greater involvement in civic action work and in agricultural extension activities within the province.
5. Improved school grounds, cleaner surroundings and more

responsible use of school facilities.

The foregoing outcomes will be further elaborated upon in the succeeding body of the report.

STRATEGIES AND INNOVATIONS INTRODUCED

Several new strategies and innovations were introduced during the school year. Among the impact-producing ones were the following:

1. Operation and management of the animal projects and the administration vegetable production program as commercial farm business enterprises with the capital input requirements, provided the project teachers in the form of revolving funds which they were free to spend for the project as needed. The revolving fund was constantly replenished out of the sales of produce of the individual projects.
2. The abolition of the father-son partnership program of supervised farming among secondary agriculture students and requiring the keeping of accurate records of all farm operations, including expenses and income, and reporting the same regularly to the teachers-in-charge and to the internal auditor, who kept up-to-date data for each student.

3. Introduction of a graduated agricultural skills development program for the practical training of vocational agriculture students as follows: (1) Phase 1 - Field laboratory stage. First year students were given only 100 square meters of land on which to plant different crops on an experimental basis. Old and new methods of plant culture were compared for greater learning effectiveness. (2) Phase 2 - Directed project stage. Second year students were given up to 500 square meters on which to grow the crops of their choice selected on the basis of their experiences in phase 1. (3) Phase 3 - Supervised farming stage. Third year students were given up to 1000 square meters to farm. They made their own plans with minimum supervision from the teachers, and decided what crops to grow, and what fertilizers and insecticides to use and others. Farm record keeping was emphasized here. (4) Phase 4 - Semi-commercial farm enterprise. Here the fourth year students (and some selected third year students) were given one-half hectare to cultivate in a realistically business-like manner. Input requirements were either supplied by the school or by private financiers.
4. Organization and holding of adult agricultural skills

training program in barrio Bayabas, Sablan, Berguet as a project of the extension division of the Department of Experiment Station.

The agricultural skills training program consisted in an on-the-farm instruction and practical training in the production of crows, broilers and pigs. Group instruction was given once a week at the barrio's unused Facoma building, and individualized instruction five days a week right on the farms of enrollees by three full-time resident instructors.

5. Holding of monthly faculty and employee seminars to discuss new trends and developments in classroom, laboratory and field instruction; administration and supervision; and research and extension.

HIGHLIGHTS OF ACCOMPLISHMENTS

As a result of the new strategies followed and the innovations introduced in administrative practices, instructional procedures, and project management techniques, several significant accomplishments have been achieved during the school year. Easily the most outstanding of these accomplishments were the following:

A. Instructional area:

Vocational agriculture students became more aware of the

need of keeping accurate records in connection with their supervised farming programs. This was impressed upon them and they responded well to the requirement that they submit for checking occasionally their records to their teachers and to the internal auditor, particularly when they harvest, sell their crops and submit the share of the school. The economic, social and educational impacts of these accomplishments were reflected in (1) more income derived from the farming programs of the students, and (2) more accurate cost of production data have been compiled and are now readily available for instructional purposes and for dissemination to farmers.

B. Production area:

The commercialization approach of managing and operating agricultural production projects resulted in a total net production income of P98,581 from all projects. This sum is nearly double that of the previous year's income.

1. An unprecedented increase of P62,113 in the net income of the animal projects was realized due mainly to:
 - (a) operation of the projects on a self-supporting basis with a revolving fund of P5,000 which the project teacher used for the purchase of feeds, medicines and new stocks;
 - (b) better program and management practices;
 - (c) establishment of a commercial size

broiler project which brought in quick returns averaging fifty centavos per broiler every eight weeks or shorter duration.

2. Successfully demonstrated on a 1.5 hectare lot that a school vegetable production project ran and managed like a real commercial farm is not only profitable but also a positive and convincing instructional device to teach students the skills and the economic advantages of farming. From the 1.5 hectare lot a gross production of P17,000 was realized, or a net of P5,000 per hectare per year.
3. Proved that growing flowers for market is profitable. Starting immediately after the floods of July and August, 1972, the chrysanthemum project of the school earned an income of more than P5,000 at the close of the school year from only 150 square meters of ground under a plastic roof.

C. Extension:

The agricultural skills training program conducted in barangay Bayabas, Sablan, from September 15, 1972 to March 15, 1973, was successful beyond expectations. In just six months, the program produced an economic impact equivalent to P12,000 of net income realized from broilers and P3,000 from crops and an esti-

mated P25,000 sale value of unharvested crops and unsold broilers and pigs; and a social impact evidenced by the enthusiastic response of the people and the demand by the other barrios to be given also agricultural skills training. The success of this program confirmed the belief of the MSAC President that if agricultural education is to produce a significant impact on the development and growth of agriculture in the country, the 3.5 million illiterate family heads on whose shoulders rest the responsibility of feeding 40 million Filipino souls must be paid attention to and be taught how to farm better and more efficiently.

On the basis of the Sablan experience, the undersigned reiterates one of seven recommendations he submitted to the then President-elect Ferdinand E. Marcos in December, 1965, to the effect that agricultural schools and colleges of agriculture should be given adequate funds with which to conduct adult farmer classes in agriculture in the rural areas where the farmers live and farm. This program should be a complement of the regular program in agriculture given in the school for the rural youths. The undersigned is convinced that farming will never attract the rural youths who are able to go to school unless they can see their fathers making economic progress and are living good, comfortable lives as farmers.

PROBLEMS AND DIFFICULTIES

The problems and difficulties of the College boil down to two types: (1) financial, and (2) land problems.

Classroom buildings, laboratories, shops and the personnel housing accommodations remain inadequate to this day. The school does not have (1) a home technology building, (2) agricultural science building, (3) biological and natural science building, (4) engineering building and animal science building. It also needs two large dormitories, each with a capacity of 500 students, for both male and female students. Faculty and employee housing remain inadequate and miserable. Most of the faculty cottages are dilapidated and unfit for human habitation. The College needs more than P5,000,000.00 within a five-year period to provide the physical facilities enumerated above.

The land question has been a problem of the school even before World War II. But it worsened after President Magsaysay issued Proclamation 209 releasing 809 hectares for distribution to applicants. Today practically all of the reservation, except the main campus, has surveyed in small parcels and applied for by squatters and dummies of public officials.

The numerous court cases arising from these surveys and applications for title occupy 90 per cent of the time of the Administrative Officer and 50-60 per cent of the time of the President, PRO, and Budget Officer.

In an effort to solve their problem once and for all the Administration requested the assistance of the Bureau of Lands, thru the Undersecretary Drilon. A team of cartographers are now busy in the job. But this, too, require funds estimated at ₱200,000.00 by the Bureau of Lands technicians.

RESUME OF POLICIES, GOALS
AND OBJECTIVES

1. To provide educational and agricultural extension services and vocational training to the youth and adult farmers of the service area of the school.
2. To produce quality graduates and quality occupational products through improved programs, practices and procedures.
3. To make continuous curricular adjustments in order to keep the instructional programs abreast with technological changes and responsive to the agro-industrial development program of the nation.
4. The College adopted as its immediate goal "a higher percentage of employment for its graduates in the agricultural occupations" and/or their establishment in farming soon after graduation.
5. The long range goal adopted is to make substantial contributions to the growth and development of the agro-economy and produce significant impact on the economic, social,

and living conditions of the farming population of the country.

In the implementation of these policies and goals, several innovations were introduced during the year under review. These innovations will be discussed separately under appropriate headings in this report. Suffice it to say at this point that the changes introduced were directed towards making the curricular offerings, procedures and practices more realistic, relevant and responsive to the needs and demands of the people and country for development and growth.

PROGRAMS TO ATTAIN OBJECTIVES

1. THE ACADEMIC PROGRAMS

The College offers academic programs at three levels:

Secondary curricula. A total of 619 students were enrolled in the secondary division of the College during the year under review. Of this number 339 were boys enrolled in the vocational agriculture curriculum and 280 were girls enrolled in the agricultural homemaking curriculum.

During the year 105 secondary students were graduated: 49 boys with the diploma in vocational agriculture and 56 girls with the diploma in agricultural homemaking. Five high school seniors failed to graduate.

Out of the total high school enrollment 57 students or 9.2 per cent dropped out for various reasons, while 32 or 5.2 per cent failed to be promoted to the next higher grade.

Post secondary one-year Farm Mechanics. For the last several years the enrollment for this program has been limited to 10 students. But during the year under report only 6 students were enrolled. All of these students completed all the requirements for this technician curriculum during the year and were graduated and awarded their certificates on April 15, 1973.

The undergraduate curricula. There were 501 students of both sexes enrolled in the three undergraduate degree curri-

cula of the College in 1972-1973. Of these 181 were enrolled for the degree of Bachelor of Science in Agricultural Education; 209 for the degree of Bachelor of Science in Home Technology; and 111 for the Bachelor of Science in Agriculture degree.

The enrollment for the BSAE program consisted of 163 boys and 18 girls; that of the BSA program, 101 boys and 10 girls; while that of the BSHT program were all girls totaling 209.

Of the collegiate enrollment, 32 were graduated with the BSAE degree and 33 with the BSHT degree on April 15, 1973. All of these graduates are now employed in the various agencies of the government, notably the Department of Agrarian Reform, Bureau of Agricultural Extension, Bureau of Public Schools and Bureau of Vocational Education.

The graduate program. The graduate program which officially started in the second semester of school year 1971-1972 leads to the degree of Master of Science in Agricultural Education. Thirty-five (35) graduate students were enrolled during the year under review. Two of these have already completed the academic requirements and are now working on their theses.

Table 1 shows the enrollment of all the curricular programs during the year under report.

Table 1. Showing the 1972-1973 Enrollment

| Curriculum | Boys | Girls | Total | Graduated |
|-----------------------------------|------|-------|-------|-----------|
| Secondary Vocational Agriculture | 339 | - | 339 | 49 |
| Secondary Agricultural Homemaking | - | 280 | 280 | 56 |
| BSAE | 163 | 18 | 181 | 32 |
| BSA | 101 | 10 | 111 | - |
| MSAE | 32 | 3 | 35 | - |
| BSHT | - | 209 | 209 | 33 |
| Post Secondary Farm Mechanics | 6 | - | 6 | 6 |
| Total | 641 | 520 | 1,161 | 176 |

2. THE FACULTY

The faculty of instruction totaled 74 instructors and professors, 62 of whom were full-time instructors and 12 part-time.

The part-time lecturers were administrators, supervisors and other officials of the College with special professional qualifications to teach particular subjects.

Of the full-time instructors 33 were in the secondary division and 29 in the collegiate divisions. Of the latter group 5 were with the home technology division; 10 with the technical agriculture division; and 14 with the agricultural education division.

During the year, 5 members of the faculty under the Secondary Division were recipients of various scholarships; three of which were for a masters degree while two were for special training in vegetable production and potato seed production in the Netherlands.

There were four (4) members of the collegiate faculty who received scholarship grants; two at UPLB and two at UP Diliman -- all leading to masters degree.

Several instructors enrolled in the various colleges and universities in Baguio City for educational and professional growth. Six of these faculty members earned their masters degree in arts and education during the year. Two were from the Secondary Division and two from the Collegiate faculty.

3. THE EXPERIMENTAL STATION

The Experiment Station was formally organized during the school year under review. It is composed of five divisions, four of which became functional within the school year:

The Research Division. The research personnel completed seven researches during the year ending June 30, 1973. Three of these studies were on the control of different insects attacking cabbage; one on insects attacking potatoes and strawberries; one on the effect of lime on the yield and growth of celery; one on the introduction and acclimatization of eight newly imported strawberries;

one on the introduction of Irish potato varieties, and one on home-mixed rations for broilers. The above studies were funded by private individuals, companies or government agencies interested in the work of the College, except the last study which was funded by the College out of its production income.

A feasibility study on asparagus production was also stated during the year under review, on a 600-square meter lot. In ten months the plants were already producing marketable spears. Plans have been completed to plant from one-half to one hectare in September 1973, out of the seeds collected from the original plantings.

A Chrysanthemum project under a plastic house which started also as a feasibility and probability study has proved to be highly profitable. Started only in September, 1972, the project has grossed more than ₱5,000.00 in sales of potted and cut flowers up to the end of the school year. After deducting the cost of the plastic house, which is less than ₱3,000.00, the project netted more than ₱2,000.00 in less than 10 months.

The Extension Division. The personnel force of the extension unit remained rudimentary till the end of the school year. Despite this handicap the skeletal force of two men was able to extend assistance to more than 200 Benguet farmers in the Municipalities of La Trinidad, Atok, Buguias and Sablan by giving technical advice, distributing vegetable seeds and pamphlets worth more than ₱500.00. The Unit also established demonstration lots in strategic places

in the above municipalities. The two extension men showed the farmers new and better ways of growing crops and raising animals.

A six-month agricultural skills training program was conducted in barrio Bayabas, Sablan from September 16, 1972 to February 28, 1973 with fund support from the National Manpower and Youth Council. One hundred six (106) farmers received group and individualized training from three full-time resident instructors on crop production, broiler raising and swine raising. This adult farmer training is MSAC's own version of realistically meeting today's problems of underproduction. It was designed as an impact program. The instructors were required to live and work with the farmers during the duration of the training program.

The schedule of instruction was: group classroom instruction once a week, and individual instruction on the respective farms of the enrollees five days a week. The farmers were taught not only the theory and practice of modern and improved ways of growing plants and raising animals but also assisted in establishing new projects such as broiler production and swine production, including securing of loans, stocks feeds and marketing of products.

The results were satisfying beyond expectations: According to the records of the farmers at the close of the training program, trainees had already realized a net income of ₱12,000.00 from the sales of 11,000 broilers and ₱3,000.00 from the sales of new crops planted in connection with the training program. Another ₱25,000.00 was estimated as net sales from unharvested crops and unsold broil-

ers and pigs.

The Adult Farmer Training Program of the school introduced for the first time to the scene of manpower training a new philosophy practical and realistic strategies, functional training and immediate impact on the social and economic well-being of the people. Seven other ACAP institutions adopted this program and its strategies under the supervision of the President of MSAC in his capacity as President of the Association of Colleges of Agriculture of the Philippines.

The Publication Division. The Publication personnel started compiling the College experimental write-ups since 1964 to the present. Many of them have not yet been disseminated. As a result of this, the Division was able to release 7 issues of MSAC Farm News Bulletin which were enthusiastically received, read and discussed by students and foremostly farmers, home-makers and extension workers of the community. Some of the latest farming topics published were as follows: growing carrots during rainy season; better cabbage varieties for lowland areas; moisture-proof containers for unused seeds, "little things" for swine needs; effective insecticides against Diamond Back Moth; diseases of swine; soldering watering cans and spray pumps; effective control for leaf miners in sweet peas; production of sweeter fruits; ideal breeds of hogs. In addition to the above compilations and releases, the Division released manuals on: Plant Pathology, Farm Mechanics, Plant Breeding, Rural Sociology and Vegetable Culture. All of these manuals were either written or compiled by faculty members.

The Production Division. In line with the College objective to show to farmers and students the profitability of farming, the personnel of this Division cultivated an area of 1.6831 hectares for 10 months and got a gross income of ₹27,307.78 and a net income of ₹5,601.52 after deducting materials and labor expenses. However, it was not so much the amount realized as the information gleaned from this project that proved the profitability of farming.

ON-GOING OR CONTINUING PROGRAM AND PROJECTS OF THE COLLEGE

1. Youth Civic Action Program. Launched last April 23, 1973, this program shall be one of the continuing programs of the College. The integrated civic action work of all college students shall be devoted to practicum in the MSAC research production, extension, and improvement projects, community agro-industries and other community-school developmental projects. The high school students, on the other hand, shall devote their civic action activities to the MSAC and community clean-up and beautification, food production, reforestation, irrigation and other socio-economic developmental needs of the community.

2. Manufacture of Hollow Blocks. This is a continuing project of the College which is meant to facilitate the building of school houses, cottages, and school fences. Headed by farm mechanics teachers, the work has been going for the last three months. Some 5,000 pieces of hollow blocks have been manufactured at the close

of the school year.

3. Relocation Survey of School Reservation. In order to define, once and for all, the boundaries of the school reservation, the Administration requested the assistance of the Bureau of Lands through the Undersecretary of Agriculture, the Honorable Jose Drillon, Jr. for the relocation of the school monuments on the basis of NR-127 approved in 1959. It is anticipated that the completion of the relocation survey will pave the way for the titling of the school reservation, and is expected to minimize, if not completely eliminate the problem of squatting on the reservation, thus enabling the Administration to concentrate on improvement projects, including the upgrading of the instructional standards.

4. Research and Studies

a. Response of Cabbage to Different Rates of Fertilizer. The study deals on the application of different rates of fertilizer and the influence of the frequency of watering on cabbage.

b. Response of Celery to Different Rates of Lime. Efforts are being exerted to find out the amount of lime needed to attain normal growth of celery. It has been observed that soils in MSAC and most of the areas in Benguet are generally acidic. This study is hoped to find the proper acidity level for celery and other vegetable crops.

c. Study on Social Distance Among Secondary Students. It is the purpose of this study to answer the question: Is there a significant social distance among secondary students in the Mountain State Agricultural College?

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The study deals on the application of different rates of fertilizer and the influence of the frequency of watering on cabbage.

b. Response of Celery to Different Rates of Lime.

Efforts are being exerted to find out the amount of lime needed to attain normal growth of celery. It has been observed that soils in MSAC and most of the areas in Benguet are generally acidic. This study is hoped to find the proper acidity level for celery and other vegetable crops.

c. Study on Social Distance Among Secondary Students.

It is the purpose of this study to answer the question: Is there a significant social distance among secondary students in the Mountain State Agricultural College?

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ACCOMPLISHMENTS

Office of the President

Much of the time of the President, Administrative Officer, PRO, and Budget Officer was spent in attending to court cases and disputes over portions of the school reservation during the year under report.

A- Accomplishments of the Office of the President

1. Through arrangement with Agriculture Undersecretary Jose Drillon, Jr., Land Director Ramon N. Casanova, and Regional Land Director Sulpicio A. Tacza, a team of cartographers were assigned to plat, compute, and consolidate the technical descriptions of the remaining tracts of land of the college reservation following the issuance on October 20, 1955 of Proclamation No. 209, which released for disposition under the Public Land Act, as amended, portions of the reservation. Expenses of the cartographers incident to their work shall be borne by the college.

2. The Mountain State Agricultural College obtained on May 31, 1973 a favorable decision in Civil Case No. 2075, Cancellation of Title and/or Reconveyance with Damages, against defendant Mathew Buteng.

In Civil Case No: 2075, the college sought the cancellation of Original Certificate of Title No. P-405, issued in the name of Mathew Buteng on December 14, 1966, covering 15,1876 hectares in the possession of the college and sought to be retained as part of the college reservation in a proposed amendment to Proclamation No. 209, s. 1955.

The Court found that Mr. Buteng acquired the title by means of fraud and misrepresentation, and therefore did not acquire any right over the property despite the issuance of a certificate of title.

3. The college is prosecuting with vigor the defense of its interests in 39 court cases, to wit:

| <u>Nature of Cases</u> | <u>№. of Cases</u> | <u>Total Area (Hectares)</u> |
|--|--------------------|------------------------------|
| 1. Petitions for judicial confirmation of imperfect title to unregistered school sites opposed by the college..... | 8 | 88.3121 |
| 2. Petitions for judicial confirmation of imperfect title to tracts of land of the school reservation opposed by the college | 17 | 91.4305 |
| 3. Recovery of possession with preliminary mandatory injunction involving the college reservation filed by the college..... | 5 | 10.0864 |

| <u>Nature of Cases</u> | <u>No. of Cases</u> | <u>Total Area (Hectares)</u> |
|--|---------------------|------------------------------|
| 4. Ejectment, forcible entry and reconveyance cases involving the school reservation files by the college..... | 4 | 15.4562 |
| 5. Recovery of possession filed by private persons against the college..... | 3 | 2.4077 |
| 6. Recovery of possession involving provincial-titled parcels of land filed by the college..... | <u>2</u> | <u>24.8290</u> |
| T o t a l s :..... | <u>39</u> | 232.5219 |

Production

The net production income of the College was ₱98,613.22 broken down as follows: vegetables and other crops from the supervised farming projects of secondary students, ₱24,146.47; animals, ₱63,430.54; canteen, ₱1,200.51; management class, ₱687.84; publication division, ₱3,456.65; production division, ₱5,601.21. The production increase was ₱31,503.13 or 32 per cent more than that of last school year's.

Appropriations

The College operated on a budget totalling ₱1,309,709.00 during the year covered by this report of which ₱1,224,021.55 was spent. This sum came from the following sources: (1) National Contribution-₱1,000,000;

- (2) Tuition Fees- P107,917.24;
- (3) Production Income-P137,460.41; and
Miscellaneous Income- P64,331.35.

Of the total appropriations P765,994.59 was spent for personal services; P243,178.81 for operation and maintenance; P29,848.15 for furniture and equipment; and P185,000 for capital outlay.

The capital outlay was earmarked for

- (1) Fencing - P20,000; (2) duplex housing for teachers- P60,000; (3) dormitory- P60,000; (4) Nursery house- P20,000; (5) Supply building- P15,000; and
- (6) improvement of campus roads- P10,000.

Only the fencing however was started before the school year ended because of the late release of the funds. All the above projects will be carried on during the current school year (1973-1974).

Facilities

Accommodations for students, teachers and employees remained inadequate during the year under review. Though the need was urgent, no additional cottage or dormitory was constructed due to lack of funds. However, all existing classroom, laboratory and shop buildings were kept in good repair.

Classroom and laboratory equipment and facilities were augmented by new purchases out of laboratory

fees of students and transfers without cost from USAID through NEC (NEDA).

In general the facilities for instruction, and student services were satisfactory. Office equipment, however, remained short.

Department of Instruction

1. The College conducted a series of faculty-employee-student seminars and open forums designed to enlighten the constituents of the academic community on the goals of the New Society in specific areas such as: (1) peace and order, (2) land reform, (3) economic development, (4) development of new moral values, (5) government reorganization, (6) educational reforms, and (7) social services.

2. In conformity with directives from the Department of Education and Culture, subjects in population education with relation to family planning, nutrition education, Kilusan ng Wastong Pagkain, subjects in protection and conservation of natural resources, cooperative education, tax consciousness, and New Constitution of the Philippines, were incorporated as units in the present curricula.

3. The Youth Civic Action Program was launched during summer 1973 to involve the students in the home, school, and community improvement and development work at the grass-roots level, to carry the impact of agricultural and home technologies, to teach better ways of living with the rural farmers, and to orient the community on the goals of the New Society.

4. The 5-year updated work-and-technical-oriented degree programs for the new Bachelor of Science in Agriculture, Bachelor of Science in Agricultural Education, and Bachelor of Science in Home Technology were implemented effective the first semester of the school year, 1972-1973.

5. Initial and final achievement tests designed to quantify what the faculty members had taught and what the students had learned were administered on August 1, 1972 and April 5-6, 1973 respectively. Each teacher submitted more than 310 test questions analyzed for percentage of difficulty and index of discrimination.

6. The Home Technology Division conducted researches on the use of potato flour made into doughnuts, griddle cakes, pastillas, potato wine. It also demonstrated on food preservation, rug making, papier mache, native recipes. They were displayed during the Family Week and on Commencement Day.

7. An experiment on the effectiveness of SUMICIDE 77, a new insecticide, was started on March 11, 1973 by a secondary vocational agriculture teacher at the MSAC Experimental Station and at the townsite area of the College reservation.

8. Researches on the following were conducted by personnel of the Technical Agricultural Division: (1) variety trials on cabbage (on-going), (2) variety trials on strawberries, (3) breeding for heat tolerance on cabbage (on-going), (4) effect of different rates of fertilizer on the yield of Irish potato, (5) effect of different rates of commercial fertilizer and chicken dung on the growth and yield of sweet corn, (6) effect of micro-elements on the growth of celery, (7) response of celery to different rates of lime (on-going), (8) comparative efficiency of different brands of commercial feeds on broilers, (9) cost of producing broilers from day-old to eight-weeks-old, and (10) efficiency of locally mixed feeds for broilers.

(9) The related subject instructors in the high school helped in the preparation of 20 student delegates to the Agno Valley FFP-FAHP District Conference held in Zambales. As a result of their training, the delegation came back with the following prizes: first place in vocal solo, second place in oration, second place in

folk dance, third place in chorus, third place in vocal duet.

Department of Student Affairs

1. From May, 1972 to April, 1973, one thousand three hundred five (1,305) consultations were given at the Medical Clinic. This was broken down into 1,045 students, 143 employees, 76 dependents, and 42 community members. Twenty-nine cases were referred for laboratory examination.

2. Informal seminar on "Occupational Information" was sponsored in August 1972 by the Guidance Committee composed of the Dean of Student Affairs, the Guidance Coordinator, and the Guidance Counselor. This was to inform the third year students of the occupational opportunities of the different College curricula.

3. The Librarian, with the help of two assistants, selected, accessioned, catalogued and purchased additional reference and textbooks. In addition they solicited a total of six hundred and thirty six (636) assorted books.

4. Policy and Athletics Changed

Instead of participating in National meets which involved the expenditure of large sums, the money for transportation and subsistence of athletes spent for the purchase of athletic supplies and equipment used for intramural meets. This change from national to intramurals

gave all the students the opportunity to participate in the games of their choice.

Furthermore, the prizes solicited and awarded to winners in the intramural competitions were in the form of books instead of trophies, medals or ribbons. These books were then donated by the victorious athletes to the College library.

5. All of the graduates of last school year were all employed. The graduates are mostly found in the various agencies of the government like DAR, BAE, BPI, Bureau of Soils, agricultural schools, and the BPS.

MSAC Experimental Station

1. The research personnel completed seven researches during the year ending June 30, 1973. Practically all of the studies were funded by private individuals, companies or government agencies interested in the work of the College.

2. A Chrysanthemum project under a plastic house has proved to be very profitable: the project netted more than P2,000.00 in less than 10 months.

3. A six-month Agricultural Skills Training Program was undertaken in Sablan. Courses in agronomy, poultry (broiler) and piggery were offered to 106 farmers. The project increased the income of the rural families enrolled by P12,000.00 during the six-month period.

4. The Station helped two hundred farmers in Benguet, particularly in La Trinidad, Atok, Buguias, and Sablan. It

distributed to farmers various vegetable seeds and pamphlets costing P500.00.

Department of Army Science and Tactics

1. The MSAC ROTC/WATC cadets/cadettes joined the civic-minded citizens of Baguio and Benguet in the rescue of landslides victims and in the rehabilitation of families rendered homeless in the calamity areas proclaimed by the President of the Philippines during the 1972 July-August floods and rains.

2. Under order and authority of the La Trinidad Municipal Council, the cadets demolished the unauthorized extensions of buildings of the La Trinidad Public Market and cleaned up the national highway. They also improved a 500-meter Barrio Betag road in La Trinidad.

3. The 72 cadets and cadettes hauls construction materials and manufactured hollow-blocks at the Farm Shop for the fencing projects of the College.

CIVIC ACTION VOLUNTEERS

1. More than 200 secondary civic action volunteers worked for 12 days constructing a dike to divert the Balili river to minimize the yearly flooding and erosion of the productive land of the school. This was under the supervision of Prof. Benjamin B. Dimas, Head of the Secondary Division. The estimated value of their labor input for the flood control work is P10,000.00.

2. About 120 third and fourth year college students were

employed in various improvement and developmental projects of the College in rural areas. Of this number, 20 joined the YMCA Summer Work Camp in Loo-Buguias and 10 joined the RILCUL Summer Cooperative Education Work Camp in Mankayan, Lepanto, Benguet, and 10 helped in setting up the New Palma Poultry Farm in Puguis, La Trinidad, Benguet.

OTHER PLANS

1. Sablan Social Laboratory. The College has decided to launch a unique extension service to four closely adjacent barrios of Sablan effective November, 1973. The nature of the project is to put up farm-family cooperators in various agricultural projects. MSAC will not only furnish technical assistance but also seek financial assistance from the PBSP. Productive projects that will be given special concern will include fresh fish culture, tiger grass growing and broom-making, banana production, ginger culture, and pineapple production. However, other cash projects like poultry, piggery and other crops will be given significant attention, too.

After the program has been properly carried out, it is expected that the cooperators will have substantially increased their capacity to produce crops and animals with maximum efficiency. The farmer would be able to discover, identify, and define his problems as well as to be able to formulate some development strategies or come out with some effective alternative measures or solutions.

2. Manpower Training Program at Tuba, Benguet. The College plans to sponsor a 6-month manpower training program on crop, piggery, and poultry (broiler) production to the farmers of Tuba, Benguet. Target date is set on September, 1973. The training program shall employ the right combination of research, instruction and extension as components of MSAC'S massive educational campaign to teach farmers the new technology in farming. One unique

feature of the training program will be the personalized assistance to be given to individual farm families to make sure that the cooperators learn the basic skills and management abilities of crop and animal production.

3. Fruit-Vegetable Research Project. Studies on Irish potato, fertilizer, seed production, and fruit trees introduction, which were started during the year under review, will be a continuing project. Proposals on fruit trees and vegetable production were submitted to the Philippine Council for Agricultural Research for consideration. Once approved for funding, the MSAC Experimental Station, which was considered by PCAR as station center for fruit and vegetables, will undertake the project.

4. Flood Control. The College plans to undertake a project for flood control in the Balili area to save the College farmland during the rainy months from June to October. This was initially started as an YCAP project in Summer, 1973.

5. Asparagus Project. The College completed plans to plant one-half to one hectare of land with asparagus in September, 1973 out of seeds collected from the original plantings. It looks forward to produce this vegetable in commercial scale.

6. Establishment of a Sub-temperate Fruit Research Orchard. The purpose is for introducing, acclimatizing, propagating and distributing temperate and sub-temperate fruits like apples, pears, persimmons, etc. The nucleus of this project has been started way back in 1962 but it was only at the close of the year under

review that a system and a determined effort was exerted to make the project economically viable.

7. Artificial Insemination Center. The College is looking forward to the establishment of an artificial insemination center within its reservation area to service the people in the improvement of cattle and swine stocks or breed.

8. Fish Pond Project. The joint project of the College and the Bureau of Fisheries started early in the year under review was completed with the release of fish in July. With its completion, the College plans to open a courseⁱⁿ/in-land-fisheries beginning school year 1974-1975.

RECOMMENDATIONS

1. It is strongly recommended that the College be given a substantial increase in its appropriation annually to enable it to pursue its development program and provide adequate (1) instructional facilities, (2) classroom accommodations, and (3) housing for its students, faculty and employees.
2. It is also recommended that the College be granted title to its reservation by Presidential decree.

"APPENDIX A"

Hereunder is a statement showing the total obligations of the College during the fiscal year ending June 30, 1973:

| OBJECT CLASSIFICATIONS | TOTAL APPROPRIATION | TOTAL ESTIMATED OBLIGATIONS |
|---|---------------------|-----------------------------|
| I. Personal Services | P790,677.00 | P705,233.91 |
| 1. Salaries and wages | | |
| 2. Contributions for Employees' Retirement and Life Insurance Premiums | P 59,386.00 | 55,741.38 |
| 3. Medicare | 5,400.00 | 5,019.30 |
| II. Maintenance and Other Operating Expenses | | |
| 1. Travelling Expenses | P 20,000.00 | 16,230.57 |
| 2. Communication Services, Repairs and Maintenance of National Government Facilities, Transportation Services | 42,458.00 | P 37,662.76 |
| 3. Supplies and Materials | P219,033.00 | P 189,235.48 |
| III. Equipment | | |
| 1. Equipment Outlay | | |
| Total Current Operating Expenses | P 30,000.00 | P 29,848.15 |
| IV. Capital Outlay | | |
| 1. Land, Land Improvement | | |
| Total for Capital Outlay | | |
| Total for MSAC | P185,000.00 | P185,000.00 |

APPENDIX B

The following table shows the College enrollment
for school year 1972-1973

| COURSES | FIRST SEMESTER | SECOND SEMESTER | SUMMER |
|--|----------------|-----------------|--------|
| Graduate Studies | 30 | 25 | 24 |
| Bachelor of Science in Agriculture | 181 | 171 | 82 |
| Bachelor of Science in Agricultural Education | 111 | 92 | 41 |
| Bachelor of Science in Home Technology | 209 | 194 | 92 |
| Farm Mechanics | 10 | 10 | — |
| Secondary Agriculture and Agricultural Homemaking | 636 | 636 | — |
| T O T A L | 1177 | 1128 | 239 |

"APPENDIX C"

Production Figures for School-Year 1973-1974
 (Net School Share students' projects)

| Producers | Amount |
|----------------------|---------------------|
| III - 1 | ₱ 2,372.21 |
| III - 1 | 418.80 |
| I - 2 | 2,496.04 |
| IV - 1 | 4,044.37 |
| III - 2 | 3,799.06 |
| II - 1 | 1,193.04 |
| Floriculture | 45.80 |
| I - 1 | 291.18 |
| IV - 2 | 3,649.07 |
| II - 2 | 4,109.41 |
| II - 2 | 1,727.49 |
| Canteen | 1,290.51 |
| Animals | 63,430.54 |
| Management Class | 687.84 |
| Publication Division | 3,456.65 |
| Production Division | <u>5,601.21</u> |
| TOTAL | <u>₱98,613.22</u> @ |

@ Total net income was ₱328,710 of which ₱230,097.00 represent the share of students of the net produced.

APPENDIX "D"

ABSTRACT OF SOME MSAC RESEARCHES

CRITICAL CONTROL OF CABBAGE CUTWORM (AGROTIS SP) IN LA TRINIDAD, BENGUET, by Esteban B. Akiw and Alejandro D. Castro. Five per cent active of HOE 2960 was applied at the rate of 0.5, 1.0 and 1.5 grams per plant, while two per cent active of the same form of insecticide was applied at the rate of 1.25 and 2.5 grams per plant. The EC formulation of HOE 2960 was applied at one cc. per liter of water.

There was a reduction of cutworm damage on all the treated plots compared to the control. Cutworm damage in the untreated plot was 43.79 per cent and was reduced to 16.39 per cent when treated. As a result of cutworm control, the yield of 1 x 5 meter plot was increased significantly from 4.625 kilograms in the control to 7.955 kilograms in the test plots.

THE EFFECT OF INORGANIC FERTILIZER ALONE AND IN COMBINATION WITH CHICKEN AND RABBIT MANURE ON THE YIELD OF IRISH POTATO, by Alejandro Castro. Two levels (3 and 6 tons per hectare) of chicken dung and rabbit manure with and without 12-24-12 (600 kg. per hectare) and 12-24-12 alone were compared using German Fine variety of Irish potato as test plant. Results indicated that: (1) it pays to apply manure and/or 12-24-12, (2) three tons per hectare of chicken or rabbit manure applied locally at planting time is adequate, and (3) addition of 12-24-12 is not as necessary with chicken manure as

with rabbit manure.

COMPARATIVE TESTS OF DURSIBAN AND DOWCO 214 AGAINST INSECT PESTS ATTACKING CABBAGE, by Frank Pagnas and Alejandro Castro. Dursiban 158 at 15 and 20 ml. per gallon applied every 4 days; Phosdrin and Bayrusil at 7 and 10 ml. per gallon, respectively; and Tamaron at 4 ml. per gallon of water, all applied weekly, checked the Diamond Back Moth during the early stage of plant development when there was a lower level of infestation. Tamaron controlled Diamond Back moth throughout, even at the highest peak of infestation.

FURTHER TRIAL OF HOE 2960G AGAINST SOME INSECTS AFFECTING POTATOES AND STRAWBERRIES IN LA TRINIDAD, BENGUET, by Esteban Akiew and Alejandro D. Castro. For the control of cutworm and molecricket of Irish potato, HOE 2960-G at 5 per cent active ingredient was hill-mixed at the rate of 0.5, 1.0 grams per hill and 1.25, 2.5 and 3.75 grams per hill at 2 per cent A.I. Furadan 3G was likewise applied at the rate of 1.0 grams per hill, all at planting time.

Results did not show significant control of cutworm. However, both granular insecticide reduced molecriccket damage on potato tubers at the rate of 1.0 gram per hill.

The two insect pests causing yield reduction of strawberries were effectively controlled by HOE 2960-G, broadcast at the rate of 60 kilograms per hectare.

ADAPTABILITY TEST ON EIGHT VARIETIES OF STRAWBERRIES, by Justino G. Hermano, Eight new strawberry varieties, namely, Fresno, Sequoin, Aliso, Shasta, Tioga, Solana, Lassen and Salinas outgrew Penicillin, and old variety, two to five months from planting. Penicillin and Sequoin were heavy runner producers while the rest were light to medium. Revade, Rabunda and Ostara were very light runner producers.

The strawberry plants started to produce flowers the second week of September (day length of 12.2 hours), and runners in the month of May (day length of 12.8 hours). Flowering stopped as runner production started and vice-versa. Shasta was observed to be a very early maturing variety, Fresno as heavy yielding, Sequoin as bearers of good quality fruits, and Penicillin as leafspot tolerant.

CONTROL OF DIAMOND BACK MOTH IN CABBAGE, by Frank Pagnas and Alejandro Castro. Cabbage plants sprayed with HOE 2960 at the rates of 1.00 cc., 0.75 cc., 0.5 cc. and Dipel at the rate of 0.55 grams all per liter of water did not vary significantly. Those sprayed with HOE 2960 at the rate of 1.00 cc/liter had the lowest larval count, highest yield (17.45 kg.), and most solid heads (0.67). Those sprayed with HOE 2960 at the rate of 0.75 cc/liter and 0.5 cc/liter had a mean weight of 15.9 kgs. and 15.0 kgs., respectively. Those sprayed with Dipel at the rate of 0.55 grams/liter gave a mean

weight of 14.6 kgs., while those sprayed with Phosdrin and Bayrusil which did not have significant difference, gave a mean weight of 9.75 kg. and 8.23 kg., respectively. The difference in mean weight of cabbage plants sprayed with HOE 20224, 20642, 20704 and 24171 compared to the control were statistically insignificant.

FEEDING OF LOCALLY MIXED FEEDS ON BROILERS, by Paul Stone, USPCV. Four home-mixed rations were compared to a commercial ration, Vitarich, at the MSAC poultry project. Broiler starter #10, a simple ration containing 22.7 per cent protein and 2930 kcal/kg. of metabolizable energy, was the most efficient: compared to the control, Vitarich, it gave a savings in food cost of P0.48 per one kilo bird and male birds ready for market 10 days earlier than the ones fed with Vitarich.