FOOD PRODUCTION AND WORK TRAINING

The primary purpose of the 1943 Brooklyn College Farm Labor Project was to aid in the nation-wide drive for increased food production. The major incentive which led students and staff alike to volunteer was the widely publicized call for help at the farm labor front, a front on which all authorities were agreed there was a serious shortage. The purposes underlying the special program of the Brooklyn College unit of the Farm Cadet Victory Corps were to set up a plan which should most successfully accomplish the food production objectives; should most effectively promote the employment of green city young people in agricultural work. Significant as were the various educational aims which have been dealt with in previous pages, for 1943 these were reckoned as subsidiary and ancillary to the main goal of the Project - that of aiding in the drive to increase the amount of food harvested during the year for armed forces and civilians, for the home front and for allies and occupied lands.

We take pleasure, students and staff alike, in the recognition which has been accorded the food production achievements of the Project.

"Any analysis of the situation, of course, pronounces the help we received from you and your Brooklyn College students up toward the top of the list. Farm products picked by the students during the summer of 1943, you may be assured, is just that much produce saved. We reason this way since local and other outside help were taxed to the limit. Additional harvest would not have been possible. We the undersigned, would like to convey for the people of Madison County, and particularly for the growers for whom the students worked, our sincere appreciation of the efforts put forth by your group."

The foregoing is quoted from a letter which conveys the official recognition of three representatives of county, state, and federal agencies (cf. end of section). This is the latest in a series of unqualified testimonials to the productive success of our 1943 venture. All express the hope that Brooklyn College
may carry on another similar project in 1944. Tempering our satisfaction in our production figures, as we take stock of last summer's program now some six months later, is the question whether we could not have accomplished more; whether our total production should not have been considerably greater? A careful and objective analysis of the 1943 record is a first step in any constructive planning for 1944.

Production goals and production results.

"Full-time employment for 200 Brooklyn College students."

"100,000 bushels of essential food."

"Six to ten bushels will constitute a fair day's picking."

Compared to these goals, set down in our printed circular of June 1st, our actual harvest of 22,000 bushels for the whole summer makes at first sight a very poor showing. Actually, the discrepancy is not as bad as the bare figures would make it seem. Several extrinsic factors, which could not be calculated in advance, entered in at the start to cut down the potentialities of our summer's work. Instead of 200 student workers, we recruited only 150, an immediate discount of 25%. Instead of an expected twelve weeks of harvest work, our actual working time should be reckoned at not more than eight or nine, a discount of about 30% more from the figure of 100,000 bushels originally estimated. Even beyond these deductions, which are almost entirely a matter of the arithmetic of working hours and enlisted strength, our production was further greatly affected by weather conditions, both during the planting and growing season of the spring, and during the summer months, to an extent that, while difficult to estimate quantitatively, certainly further reduced the possibilities of our total production materially.

From the standpoint of our Brooklyn College project, the 1943 weather deserves a full paragraph by itself. Only one mark on the credit side can be accorded to it, an educational contribution—it emphasized, in headline capitals, boldface, and underlined, the dominant influence which weather exerts on rural life and agricultural production. The weather during the planting and spring
growing season in Central New York was almost entirely adverse. Because of excessive rain, farmers could not plant in steady succession the peas which we had counted on picking, beginning about June 15. We delayed our departure from Brooklyn until June 28, but we still suffered from the aftermath of interrupted planting and poor growing conditions. During our first three weeks there were not enough ripened crops to require full time picking. Moreover, some of the fields we harvested had only partial crops. This poor beginning was more than merely a reduction in the total bushels harvested. We got off to a poor start in earnings and a poor start in the general working conditions. As if this start was not bad enough, the summer weather continued to be of a sort to interfere with our production and working conditions. In a summer, rated by Washington weather authorities as the driest since 1854 for the eastern part of the country generally, Madison County and parts northeastward, had over three times the average precipitation for July and August. Many times our pickers were driven from work by the rain. Whole days were lost and other days were cut short. Toward the end of August, the excessive rain even began to have a deleterious effect on the condition and yield of the bean crop, by washing the dirt away from the roots, and causing some disfiguring blight.

It is always consoling to be able to point to an active adversary whose operations could not have been guarded against in advance. Whatever its cause, the 1943 weather was certainly an unrelenting enemy of our first Morrisville expedition. Surviving that, we are probably not too optimistic if we believe that no future venture can have any worse extrinsic factors. That the bad weather reduced our total production in bushels even beyond the fifty-five percent already figured there can be no doubt.

While the extrinsic factor of bad weather represented a major obstacle in the way of the best production by the group, not much can be done about it. Intrinsically, however, within the framework of the program and in its operation were other factors which are susceptible of possible modification and improvement.
The analyses which follow are intended to divide the problem into its constituent parts, each a possible unit for study and constructive proposals.

The total production of 22,000 bushels was the sum of the individual efforts of 150 student workers, or to take the average registration for the ten weeks, of 140. This reduces to an average for each individual of 157 bushels for the summer. For the total of 22,000, divided into the ten weeks gives an average of 2,200 per week; the daily average, for fifty working days, would figure at 440. The best single day's production was 962 bushels, picked in August by less than 130 students, an average for each individual of over 7.5 bushels. For the whole period, the individual average per working day was under 4.

The range of individual production is graphically expressed in the following distribution curve, prepared by Professor Edward Fleisher. With certain qualifications, this presents a fair record of the relative standing of the entire 150 student workers. Note that for those who left early, an equated total in bushels has been figured for ten weeks on the basis of their average pick during their weeks of stay. Since the first five weeks were much less productive than the last five, these equated totals are somewhat less than fair for what might have been a full ten-weeks harvest.

Production record in bushels of peas and beans picked by student workers of Brooklyn College Farm Labor Project, 1943, Morrisville, N. Y.

Note that totals are figured for the nearest ten bushels, except for a few who were highest in production. Each symbol stands for one student, # for boys, * for girls. Dash (-) indicates awards from the Edward Everett Horton Prize Fund.
The variations in individual production shown on the chart and the differences in total group production from day to day prompt a whole series of questions, only a few of which will be considered here. The record of 962 bushels for one day poses a question when contrasted with the average of 440, and particularly with the lower production of other days' figures. The disparity between the highest and lowest individual scores calls for explanation. The answer to the latter problem will not be found in any single factor but on the differences of reaction of individual students, some of which can be cited.

For an understanding of the great variation in group production from day to day, aside from the interference offered by rainy weather, a little excursion into bean biology and harvesting practices is called for. Pea picking is a simpler problem. On a given field, the pea harvest is completed in one task. For canneries, the vines are cut with a mowing machine, and put through a thrasher at the cannery. For market use, pea vines are pulled and stripped of all the pods which are not too "slabby," i.e., too thin. With beans, however, when the first pods reach marketable size, there remain a considerable series of smaller pods, even of unpollinated flowers. This first picking, referred to as "opening the field," calls for the careful selective picking of the mature pods. If the first picking is properly done, and not too many of the immature pods are removed, a second picking within five or six days will yield another good harvest in bushels, and similarly for a third picking. If at the first picking, any number of well-grown pods are left unpicked, they complicate the second picking. Bushels with a mixture of too-old pods will be worth no more than half as much as those with uniform pods. If at the first picking too many under-developed pods are included, the second picking will be much sparser than it should be.

Some additional bean biology may be inserted for greater completeness. The principal market varieties of snap beans grown in the Madison County area are few in number. Yellow-podded beans, "flat wax" or "round wax," are less frequent than the green types. Of the latter, "Bountiful" was chiefly grown as a "market
bean," that is for sale in city markets. The round-podded "Tender green" was picked largely for canning factory processing. Because there is no way of harvesting snap beans except by laborious hand methods, the cost of raising beans for canning is very much higher per acre than with peas. A recent Geneva Experiment Station bulletin reports the figures at $200.00 and $64.00 respectively, with 68% and 14% as the portions of the cost attributable to labor. Labor costs for picking snap beans differ somewhat according to yield per acre, to the stage of development when picked, and to the variety of bean. The average size of the beans picked for market sale ran about 2,000 pods per bushel of 30 pounds net. Canning factory beans might average somewhat larger. In one field where picking had been delayed by a succession of rainy days, the beans had reached the "banana" stage, with a bushel full totalling as few as 100 or 1200 pods. One canning factory variety, the "Refugee," regularly scaled considerably smaller in pod size, perhaps as many as 3,000 being necessary for a bushel. Stories, which were rife at times, of bean fields plowed under because no pickers were available were, according to Mr. Roderick Virge, U. S. Employment Service agent for Madison County, traceable to a few fields of the Refugee variety. For this variety, the picking price ranged from 75 to 90 cents per bushel. Unless their yield was exceptionally heavy, it did not pay the grower to have them picked at this rate.

In large-scale bean growing, the squad of pickers which "opens" a field is expected to carry it through a second and third picking; the last picking is referred to as "closing the field." They are thus responsible for careful work in the first instance. Poor selection of pods and rough handling of the plants on the first occasion brings their own adverse result in poorer harvest the second and third pickings. While first pickings tend to be most productive and therefore most profitable to the harvesters, this is not always true, and the successive pickings are essential for any adequate acreage yield.

With the professional bean pickers, second and third pickings, with lower yields are accepted as a matter of course. If the plants yield fewer pods, the
pickers move through the rows a little faster and work to close the field as promptly as possible in order the sooner to reach a new field. With our group, the indication of lower yields acted not as a stimulus to somewhat more rapid coverage of rows but the reverse. Following a day of high production, the next day might see less than half as much. This kind of let-down was chiefly among those in the lower half of the production curve, but the result was too often a day and a half or two days on a field which might have been finished in one day, thus delaying the opportunity to open a new field with better pickings.

Another difficulty which led to lower production was also in part a sort of group reaction. For fullest success, any group of pickers must demonstrate, not only individual skill, but teamwork to a high degree, particularly at the end of each day, and at the closing of a field. When the picking for any given field is being completed, some will finish their rows and their baskets considerably ahead of others but without time enough to fill another basket. Payment is made only for full baskets. If they merely stand around and wait for the others to finish, it means that a large number will waste man-hours and that much less picking will be accomplished. The next field for this group may be miles distant so the truck must wait for all. A similar situation prevailed when the group worked in a field too large to be completed in one day. In such a case, it was necessary that a given series of rows be completed before the trucks could leave for home. The answer in both these cases is the development of a team spirit by which all will pitch in to finish tag ends of rows and to fill part-bushels. The disposition to work cooperatively was present in a large majority of our group but the problem of fullest teamwork was not satisfactorily solved.

Variations in the production of individuals were due to many different factors, a few of which may be indicated. Lack of physical stamina was responsible in a few cases. Manual ineptitude, despite the most earnest effort, kept some down. Fatigue in the field resulted in not a few cases from avoidable failure to get enough rest. Some worked fairly hard during the first days of a week,
until they were assured of earning their room and board, then slowed down. We had a few cases of physical disabilities which proved more incapacitating than their doctors had expected. More than one discovered during the summer that bean picking demands concentration; a decrease in sociability led to an immediate gain in production. Without any exact statistics, there seemed to be some correlation between previous work experience and steadiness in this totally new kind of work. **Work experience as a field for college instruction.**

In its fullest possibilities, the work experience of the 1943 Morrisville program was not only the primary basis for the program as a war-production effort; it was also potentially the most valuable from an educational point of view. In cities, our students often have work experience which correlates well with the consumer problems of city dwellers and with some appropriate college courses in economics, and other fields of the college curriculum. Morrisville afforded an opportunity to gain work experience in food production and at the same time to meet and know country people, and to take regular college courses with special relationships to rural life.

As the discussions of the previous pages have indicated, work experience as a field of learning comprised many and varied problems, almost completely new to staff and students alike. Two of our students had had some bean-picking experience as part of general farm work during 1942. Of the staff, two had had practical farm work experience, and one, Verno Booth, had served as foreman in a factory. It is a tribute to his field leadership as well as to a generally admirable response on the part of our students that the project succeeded so well in food production as to deserve the encomiums which it has received from various sources. To these may be added one other: Our employing farmer testifies that our group put up the "best package" he has ever had. By this he meant clean picking, freedom from leaves, and general uniformity.

From the instructional point of view the field problems were something like those which confront a science teacher assigned to a lab section of 150 novice
students, and faced with the problem of leading them toward the acquisition of competence in a new kind of skilled labor. The task was further complicated by the fact that the process was apparently very simple; merely pulling pods from vines and placing them in baskets. This difficulty was epitomized by the experience of one visiting parent who tried his hand in the field one day and came back protesting that no one could make a decent day's wage picking beans. Informed that experienced pickers earned ten to fifteen dollars a day, he was incredulous: "I've got two hands, haven't I?" Even student workers who were among our best pickers found it hard to accept that their best day's production might be no more than half that of the really expert worker. Add to this general difficulty the fact that Brooklyn College instructors had to master both the techniques of bean picking and the problems of teaching them as the summer progressed.

That between tyro and expert bean picker there exists as wide a disparity in skill and efficiency as between beginners and professionals in any sport or manual work was finally demonstrated to a group of our best pickers too late in the summer for its best effect. Four top pickers were taken to work alongside of a group of Florida negroes who pick beans north and south, from one end of the year to another. In this case, our students, pushing themselves to the limit, were outdistanced by one of the Florida pickers who was working without extra effort. A not too precise count of the hand motions of our students and of the Florida picker gave some insight to the difference in results. Our two girls averaged just about fifty picking motions per minute. Our boys made sixty, while the negro picker moved his hands seventy times, and most important, few if any of these were ineffective. These Florida workers were exponents, also, of effective teamwork.

Before the end of the season, our teaching staff in bean picking had learned many things which could be made use of from the start of another season. Beyond a general understanding of the whole problem, certain specific teaching technics are indicated as desirable, e.g., motion pictures of right and wrong
procedures; occasional visits from some of the professionals. For much of the summer we did gain through a division of the whole group into teams of about fifteen each.

One specific provision was of considerable value as an incentive to improved individual achievement in production, the prize fund of $150.00 contributed by Edward Everett Horton. Its awards, at first made in the form of $5.00 weekly each to the top pickers from the ranks of the boys and the girls, became more effective when reduced to $2.00 and awarded to the five best, with previous winners ineligible. Workers who had started in the ruck became imbued with energy and drive as the season wore on and the chance to win a prize loomed as possible. To a considerable extent it may be said that, once gained, the habit of greater production remained after the prize had been won. A list of thirty-six prize winners is given at the end of this section.

Beyond any such specific procedures, if the program is to be repeated, several things will be essential. First, from the 1943 group of student workers there should be recruited a good number of the steady workers from last year; a nucleus of leaders who will sign up, both for the further enjoyment and experience to be gained from another summer at Morrisville, and for the leadership in work and cooperation they can contribute toward the success of a second venture. Such leadership will be needed not only on the field; it will be equally important in the further development of campus life and activities at the Institute headquarters. No one part of this new kind of summer session is distinct or separable from the other parts. Given such a group of Morrisville "upperclassmen" Brooklyn can march forward in 1944 toward the accomplishment of a project far ahead of that of 1943. Much planning remains to be done, although there are already indications that many of the difficulties of the past summer can be obviated; many remedies can be found which will result in increased individual and collective production. To make these proposals realities, and for many additional suggestions which can be built into the 1944 work-study plan, we must count heavily on a goodly number of the 1943 pioneers, students and staff working together.
Supplementary. Two items are included as part of the record of Production for our Brooklyn College group: (1) a list of the students who were awarded prizes from the Edward Everett Horton Fund, and (2) the testimonial letter which was quoted from in the section.

Awards from the Edward Everett Horton Prize Fund.

Note: While the list is arranged in alphabetical order, the top producers for the whole season are marked by numbers, representing the leading boys and girls. As the distribution curve will show, a number of the others are rather close behind. Your received awards for perfect attendance every working day.

Martin Biller  Marion Isaacson  Lester Rosen (4)
Esther Binder  Ethel Iskowitz  Jerome Schaeffer
Sarah Choiker  Abe Kirchenbaum (1)  Vivian Sogerman
Miriam Daniels (1)  Phyllis Loshaw  Florence Simon (3)
Zahava Feldman  Irving Levinson  Eva Solomon (4)
Kenneth Goldstein  Herbert Levy  Marvin Thall (3)
Laurel Gottlieber (2)  Estelle Mazur  Rose Wasserthiel
Estelle Granofsky  Estelle Mischler  Alice Weinroth
Beatrice Greenblatt  Abe. Nathanson  Pearl Weitz
Irene Hammor  Judy Passikoff  Max Wiseman (2)
Lillian Handman  Georgena Pritchard  Phyllis Zaretzky
Esther Haskowitz  Mildred Ribakoff  Boss Zusblatt
U.S. Department of Agriculture
N.Y. State College of Agriculture
N.Y. State College of Home Economics
Madison County Board of Supervisors
Madison County Farm and Home Bureau
and 4H Club Association, co-operating

Extension Service
County Agent Work
Wampsville, N.Y.
Dec. 22, 1943

Dear Sir:

The fact that you have not received a letter from us earlier is not indicative of a lack of interest or appreciation on our part. It has only been in recent weeks, however, that we have paused long enough in our daily routine to take inventory of what really happened last summer.

Any analysis of the situation of course, pronounces the help that we received from you and your Brooklyn College students up towards the top of the list.

Farm produce picked by the students during the summer of 1943, you can be assured, is just that much produce saved. We reason this way since local help and other outside labor were taxed to the limit. Additional harvest would not have been possible.

We, the undersigned, would like to convey for the people of Madison County and particularly the growers for whom the students worked, our sincere appreciation of the efforts put forth by your group.

We hope you can convey these thoughts to your students. We hope that they realize something of the tremendous job which they have accomplished and what it means to the agriculture not only of this county, but to the people of the country as a whole.

We sincerely hope that you feel kindly enough toward our Section of the state and our particular type of agriculture to return to us in 1944.

Sincerely yours,
Lynn H. Bookhout
County Agricultural Agent

Lawrence C. Smith, Chairman
County Agricultural Defense Committee

Roderick J. Virge, Supervisor
Farm Placement, U.S.E.S.