FARM LABOR REPORT P. 6

P. 15

EMPLOYMENT SERVICE DIVISION 7310 Woodward Avenue, Detroit 2

POST SEASON

Act 106 of Public Acts of 1903 (Michigan)

AN ACT to prescribe the duties and liabilities of employers and employes arising from the offer and acceptance of inducements for the performance of labor or service for hire at some point away from the home locality.

The People of the State of Michigan enact:

Foreign work; contract, written terms; minors under 16; penalty.

Sec. 1. Any person, company or corporation, or any agentor officer thereof who shall induce another person, by promise of wages or other valuable consideration, to agree to work for the person, company or corporation in whose behalf the offer of inducements is made, at a point away from his or her home locality, shall specify in writing the terms and conditions under which the said work is to be performed, the rate of wages and how, when and where said wages are agreed to be paid, and may furnish a copy of such statement of agreement to the person so induced by the promises therein to agree to work for the person, company or corporation offering said inducements: Provided. That it shall be unlawful for any person to make a tender of inducement to go away from the home locality to work, to any child under 16 years of age unless the written consent of the parents of such child has been first obtained, as well as the consent of the truant officer or county agent of the board of corrections and charities for the locality where said child belongs; and in case such consent is obtained and the child goes abroad under the influence of the inducements so offered, such child under 16 years of age shall be safely returned to its home at any time when its parents shall request, in writing, such return. Any person or any agent or officer of any corporation who shall, in offering inducements to any person to work for hire at any place apart from his or her home locality, misrepresent any of the conditions of such employment as mentioned above, shall be liable to pay to the person injured by such misrepresentation, the full amount of the damage sustained and shall be further liable to the penalties provided in section 3 of this act.

Employe, fraudulent acceptance of benefits; misdemeanor; prima facie evidence.

Sec. 2. Every person, who, with intent to defraud, shall accept or receive transportation provided by or at the instance or expense of his employer, from any point in this state to or in the direction of the place where he has contracted to perform labor for, or render services to such employer, or who shall knowingly, and with intent to defraud, accept or receive the benefit of any other pecuniary advancements made by or at the instance and cost of his employer, under an agreement on the part of such person to perform labor or render services in repayment of the cost of such transportation or of such other benefits, shall be deemed and adjudged guilty of a misdemeanor if he shall neglect or refuse to render services or perform labor of an equal value to the full amount paid for such transportation or other benefits, or shall neglect or refuse to pay such employer in money the amount paid therefor. The value of the services to be rendered, or labor to be performed shall be determined by the price agreed to be paid therefor by such employer under his contract with the employe. The failure or refusal of any such employe to perform such labor or to render such services in accordance with his contract, or to pay in money the amount paid for such transportation or other benefits, shall be prima facie evidence of his intent to defraud.

Penal ty

Sec. 3. Every person found guilty of violating the provisions of this act shall be punished by a fine not exceeding 25 dollars or by imprisonment of not less than 10 nor more than 60 days.

Prepared by Farm Placement Section

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Prevailing Wage Rates by Area for Major Activities . . .

Employment of Seasonal Workers, Demand Over

SEASONAL FARM LABOR

PLANNING

ADMINISTRATIVE: All year-round Farm Placement personnel were called in for a conference in March. New procedures, particularly the implementation of the Secretary's Regulations were discussed and plans of action developed. Later, each Crop Area Supervisor called a meeting of all personnel under his supervision including seasonal employees to review new procedures and develop local plans of action. State Office personnel attended these local meetings to insure coordination of programs and uniformity in interpretation of policy. In addition, a fall conference of all supervisory personnel was held to review the problems experienced during the past season and to work out possible solutions.

The area around Cadillac formerly needed workers for the snap bean harvest. Early information from that area indicated an almost complete mechanization of this activity in 1960. This obviated the need for a seasonal Farm Placement Representative. On the other hand, the larger berry and fruit acreage in the Ludington-Scottville area increased demands for personnel services. Therefore, the seasonal representative formerly servicing the Cadillac area was transferred to the Ludington-Trailer Office.

The overnight rest camp for migrants built and operated by the City of Benton Harbor did not appear to be patronized by the regular migrant labor force. The principal users of this overnight camp were the less fortunate, or alcoholics. Many of these were not interested in agricultural work. The land had been desired by private interests for industrial expansion. After weighing the pros and cons the city officials felt that in the best interests of the community the camp should be closed and the property sold. (It is hoped that when the wholesale market is moved from its present location, some consideration will be given to building a camp at the new location. Tentative plans call for a location just off the expressway. Such location appears to be more ideal for the regular migrant labor force.) The Farm Placement Specialist normally assigned to aid in supervising the overnight camp operations on a seasonal basis was transferred to the Benton Harbor office to assist in the regular functions of the Farm

Placement Service because of the increased demand for our services in that area. (See map on page 3 and list on page 4 for locations offering farm placement service.)

OPERATIONAL: In 1959, acute labor shortages were a constant problem. It was a highly explosive situation because of the perishable nature of most crops. Early predictions of acreage and yield indicated a need for about 160,000 workers with a peak of 99,500 in order to avoid labor shortage problems during the 1960 season. The differential in the total number required and the peak need was due to the fact that local workers were available only for very limited area of work and a separate labor force had to be recruited for each area. In addition from 17% to 37% of the out-of-area domestic labor force were generally available for only one crop activity. Farm Placement Representatives started to contact individual farmers and solicited job orders for the 1960 season even before the 1959 calendar year had ended. This action was greatly accelerated during the first three months of 1960.

The total number of seasonal workers which appeared to be needed to meet the 1960 demands of Michigan's agriculture was about 15,000 greater than the available labor force in 1959. Replies from clearance orders extended in January and February indicated that about 5,000 less job openings would be accepted by southern workers than a year ago. Reports covering private recruitment efforts by grower associations appeared to show a similar proportionate reduction. Therefore, more intensive as well as earlier recruitment efforts became the order of the day.

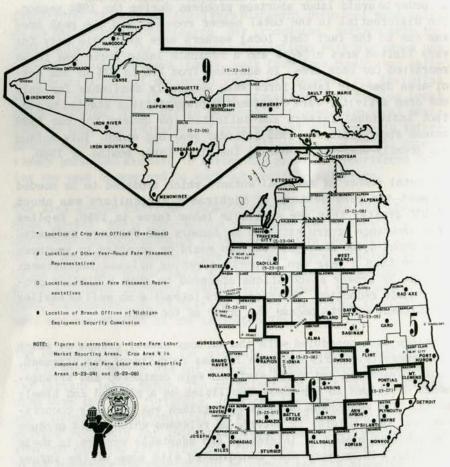
Meetings were scheduled with the various grower groups at which the necessity of early and more intense recruitment was stressed. Local newspapers and radio stations were contacted and arrangements developed to use these facilities on a planned and timely basis. (The management of these enterprises was not only cooperative but very helpful in setting up releases which would produce the greatest number of interested and adaptable workers in their locality.) Plans were also coordinated with some of the larger grower organizations and labor supply state agencies to use out-of-state radio stations should the need arise and yet hold the disruption of the Annual Worker Plan to a bare minimum.

The necessity of submitting accurate information on labor market conditions in each locality for inclusion in the Farm Labor Information Bulletin was also stressed. Additional Farm Labor Job Guides were prepared to better acquaint out-of-area interviewers

FARM PLACEMENT OF

SERVING AGRICULTURE IN MICHIGAN

CROP AND FEDERAL REPORTING AREAS of FARM PLACEMENT PROGRAM



AT AN EMPLOYMENT SERVICE OFFICE SAVE TIME - - - - SERVICE IS FREE!

LOCATIONS FOR FARM PLACEMENT SERVICE

CROP AREA SUPERVISORS

369 Ninth, Benton Harbor Area 5 700 Adams, Bay City 95 W. Webster. Muskegon " 6 925 E. Michigan, Lansing 312 River, Manistee 242 Oakland, Pontiac

126 Boardman, Traverse City "U.P. 117 S. Front, Marquette

YEAR-ROUND FARM PLACEMENT REPRESENTATIVES

Adrian, 118 W. Church Grand Rapids, 129 Michigan N. W. Hart, Bank Building Hooper-Plainwell

Monroe, 11 W. Vine Saginaw, 2114 N. Michigan South Haven, 505 Quaker

SEASONAL FARM PLACEMENT REPRESENTATIVES

Alpena, 111 Water (June thru Aug.) Barryton (June thru Aug. Bear Lake (Trailer) (May thru Oct.) Belding (Mar. thru Oct.) Edmore (Feb. thru Oct.) Grant (Feb. thru Nov.) Hancock (June thru Aug.) Hartford, Chamber of Commerce Bldg. Shelby (May thru Oct.) (Feb. thru Oct.)

Au Gres, City Hall (April thru Oct.) Holland, 244 River (June thru Aug.) Imlay City, 350 E. Third (Mar. thru Oct.) Jackson, 540 N. Jackson(June thru Aug.) Keeler (April thru Oct.) Ludington (Trailer) (May thru Oct.) Reed City, Courthouse (June thru Aug.) Sandusky (June thru Aug.)

OTHER COMMISSION BRANCH OFFICES

Alma, 302 W. Center Ann Arbor, 111 Felch Bad Axe, 598 N. Port Crescent Dr. Battle Creek, 171 W. Van Buren Caro, 230 N. State Cheboygan, 702 S. Main Street Coldwater, 30 N. Clay Dowagiac, 236 S. Front Escanaba, 305 Ludington Flint, 706 Payne Grand Haven, 19 N. Seventh Hillsdale, 30 S. Howell Ionia, 228% W. Main Iron Mountain, City Hall Iron River, 420 Third Ironwood, 135 W. Aurora Ishpeming, 108 Canda

Kalamazoo, 491 W. Michigan L'Anse, 120 Broad Menominee, 432 Tenth Midland, 513 Bay City Road Mt. Clemens, 37570 S. Gratiot Munising, 120 E. Superior Newberry, Community Bldg. Niles, 107 N. Second Ontonagon, 540 River Owosso, 203 S. Gould Petoskey, 455 Bay Street Plymouth, 987 South Mill Street Port Huron, 330 Quay St. Ignace, Municipal Bldg. Sault Ste. Marie, 567 Ashmun Sturgis, 202 E. West Wayne, 34530 Sims Street West Branch, 2430 E. Houghton Ypsilanti, 120 E. Cross Street

with Michigan job demands and working conditions. These covered strawberry and cherry picking activities. Known labor supply states were sent sufficient copies to provide one for each local office. Others received only a limited number. A few states requested an additional supply.

Last but not least school officials were contacted to make plans for timely mass registration of high school youth. Farm Placement Representatives were present at such registration activities to help with supervision and to answer questions relative to job requirements and working conditions.

Instead of depending upon the old day-haul system which did not provide any assurance as to the number of workers who would be available for pick-up on any one day, it was felt that a program along the lines of the Annual Worker Plan for out-of-area workers should be adopted for the local labor force. This was not a new idea because it had been used by some offices with a great deal of success for the past two years.

The program appeared to greatly curtail operational problems. It disclosed possibilities for improvement of employer-worker relationship because the same workers returned to the same employer daily. It also appeared to show an apparent potential to reduce labor turnover; provide more accurate gauge on the availability of workers; and allowed more time for recruitment, selection and referral of workers.

Each applicant showing interest in seasonal farm work while being registered at a branch office was asked if he or she had available transportation. If they did not have transportation, they were asked if they knew of anyone who had and might be willing to accept agricultural work and at the same time haul other workers. The same line of query was carried on during mass registrations at high schools.

The owners of transportation were then contacted to find out what activities they are interested in, whether they had any specific grower in mind, number of workers in the group, if they would take additional workers and how far they were willing to travel to and from work. Additional workers were selected by the drivers from registered applicants, who did not have available transportation, yet lived in their immediate neighborhood. Usually these drivers knew who would or would not readily fit in their group. As soon as groups were organized they were matched with the orders

on hand or job development started with known growers who had not as yet filed a job order with our office. If conditions being offered were acceptable to both grower and group, the order was closed unless it appeared that the group was too small to handle the job. If the group could handle additional work another unfilled order that most nearly met the existing situation was selected or job development initiated and employer contacted. The prescribed form for scheduling workers, ES-369, was used only when two or more activities were accepted. Otherwise, the schedule of work was noted only on the registration card of the driver and on the job order. However, a few day-haul points were still operated under the old procedure to take care of applicants having no ready transportation.

The promulgation of federal regulations covering conditions under which State Agencies may assist in the recruitment of out-of-state labor made it necessary to change some of our earlier recruitment plans. There are no State statutes specifying minimum housing standards for migrant workers. Minimum standards for health and safety had to be developed. Therefore, the Agency met with the Michigan Department of Health officials to develop such standards, draft procedures, as well as a form to be used for recording results of inspection findings. In addition, it appeared to be desirable to work out some mutual arrangement with county health officials to help our field personnel in making a determination on doubtful cases. The State Office of the Department of Health alerted the county health officials of the impending program.

These preliminary developments were discussed in detail at a meeting attended by all year-round Farm Placement personnel. For the first season known borderline or questionable camps were to receive inspection priority. Field farm placement personnel met with county health officials and discussed the matter more fully at that level. Misunderstandings and problems were to be referred to the attention of State Office concerned for review and possible solution.

The State and County Health Departments were not provided any additional monies for inspection of migrant housing. However, they showed a willingness to cooperate on this program to the extent it was administratively feasible. They proposed to at least inspect any borderline housing called to their attention by our field personnel and assist in making a determination on such cases. In May, 1960, the proposed standards and housing inspection forms

and regulations were duplicated and distributed. Growers were given copies of the Secretary's Regulations and the housing standards during the first visit to the farm. These publications were also distributed to growers at association meetings.

Farm Placement field personnel were also instructed to gather wage information on as many activities in which domestic migrants were employed as was possible and at the same time survey in their respective areas the prevailing practices on transportation allowances and other perquisites.

EMPLOYMENT AND OPERATIONAL DEVELOPMENTS

The bulk of Michigan's seasonal agricultural activities required labor for short periods of time, not exceeding six weeks duration. These field activities included planting, transplanting, weeding, hoeing and/or harvesting vegetables, tree fruits, berries and sugar beets. In order to provide continuous work opportunity; meet expressed choice of jobs and available labor; and curtail labor shortages, much time was required in scheduling and rescheduling of worker groups.

The total seasonal labor force who worked at one time or another on Michigan farms during the season exceeded 147,000 workers. It consisted of over 64,000 local workers, 72,000 out-of-area and out-of-state workers and 11,900 foreign workers. Peak seasonal employment was reached during the last half of July when over 90,000 were employed. Estimated state employment figures on a semi-monthly basis are shown in a table on page 9.

Family groups continued to dominate the domestic work force in activities occurring during the period of June 1 and September 1. However, adult crews (male and female) played a very important part outside of this period. The foreign labor force consisted entirely of adult males, with Mexico providing 11,700; British West Indies 385, and Canada 13.

The Mexican Nationals were employed primarily in blocking and thinning sugar beets and harvesting pickling cucumbers. Workers from the British West Indies were employed in vegetable and tree fruit harvest. The workers from Canada were required to fill the needs of the expanding fish bait enterprises. Although the activity of dew worm picking on a commercial scale had provided seasonal work for several thousand of workers in our neighboring country, it was just introduced in our state. Therefore, the Canadians were needed to train potential domestic workers. An occupational analysis indicated a possible maximum employment opportunity potential of from 1,500 to 2,000 workers with higher earnings potential than on many other seasonal farm activities. The job required workers who could adapt themselves to stoop type activities such as pickle picking, asparagus cutting or snapping, or sugar beet blocking and thinning. It is not easy to adapt one's self to working for long periods of time in a stooping position. Therefore, only a limited number of workers have remained in this type of work for any length of time. Handling of live worms is repugnant to some people. In addition, this is a seasonal job lasting about six months. All of these factors tend to restrict availability of suitable labor.

Due to the lateness in the season, by the time recruitment plans were finalized most migrant seasonal workers were already on the move. This restricted recruitment activities to uncommitted local applicants. Very few of the 230 recruited and hired remained on the job more than three days. Thus the hoped for cadre of domestic workers for 1961 was not realized.

In-season reports revealed an increase in the employment of interstate and intrastate seasonal workers by 7,000 from that of 1959 but disclosed a decrease of about 6,000 workers from local sources. This reduction in the employment of local workers was effected primarily by two factors: (1) almost complete mechanization of the snap beab harvest, and (2) cold and wet weather in the spring and early summer curtailed planting of annual crops and maturity of all crops.

Placements in 1960 totaled 166,117. This was 31,138 less than a year ago. The drop in placements was primarily due to (1) mechanization of the snap bean harvest (2) reduction in planted acreage of vegetables because of adverse weather conditions and (3) many interested and available workers contacted the farmers direct instead of using our branch offices when newspaper or radio announcements broadcasted labor shortages. Reported monthly placement figures are shown on page 9.

An analysis of clearance job orders extended to areas within the

EMPLOYMENT OF SEASONAL WORKERS IN AGRICULTURE, DEMAND OVER SUPPLY AND AGRICULTURAL PLACEMENTS IN 1960

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1101004	TURAL PLACE- MENTS*	JAN. 370	FEB.	MAR. 376	AP R.	3;691	JUNE 12,996	JUL. 78,414	AUG. 39,905	SEP T.	12,695	2,134	DEC.
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75.5	LOCAL	25,068	24,272	29.740	29, 166	21,703	21,763	20.047	9,756	5, 299	5,383	4,989	4.789
AGR I CUL TURAL	TOTAL	969.19	83,989	087.77	67,935	47,415	41,841	34,773	14,590	6,209	6,000	5,500	5.000
W.	D Q Q	15	31	15	3.1	20	30	-5	31	15	30	15	3.
REPORTING		JUL.	JUL.	AUG.	AUG.	SEPT.	SEPT.	oct.	oct.	NOV.	NOV.	DEC.	DEC
Ann	TIONAL WORKERS REQUIRED	0	0	0	0	0	0	0	0	0	0	0	0
/i 1/	FORE I GN WORKERS 2/	14	14	14	14	14	16	16	16	16	1,858	2,627	2 628
EMPLOYMENT	NON-	100	100	100	100	150	200	9.40	2,180	5,476	10,633	767.72	22 251 34 675
TURAL EN	LOCAL	3,786	3,686	3,686	3,886	4,336	4,784	7.004	8,929	10,133	11,989	17,289	22 251
AGRICULT	TOTAL	3,900	3,800	3,800	4,000	4,500	5,000	7,960	11,125	15,625	24,480	47.713	59 554
	TING	15	31	15	28	15	31	15	30	15	31	15	9
	REPORTING	JAN.	JAN.	FEB.	FEB.	MAR.	MAR.	APR.	APR.	MAY	MAY	JUNE	FNII

(Peak employment occurred employment seasonal the work day preceding the reporting date. included in Were and 5 7

d. However, th workers were year-round. s were limited to six mo the foreign we certifications 1 22 of their c Between 11 and figures since

however, figure, The well. as Workers of year-round areas. acements to other 17 and include pl workers referred Total placements amounted to 166,117 not include 10,161 acceptances by wo

does

continental limits revealed that 23,749 job openings were accepted or a little better than 50% of the total. A similar analysis of clearance orders for predesignated groups covering 34,822 openings showed that 21,863 job openings were accepted but workers failed to show up for 2,621 openings; 5,579 offers of work were rejected; workers could not be located for 4,100 openings; and no reply whatsoever was received by State Office on 322 orders covering 3,280 job openings.

Clearance orders for predesignated workers were extended to the States of Alabama, Arizona, Arkansas, Florida, Georgia, Illinois, Indiana, Kentucky, Louisiana, Oregon, Tennessee, Missouri, Texas and Wisconsin. Orders for nearly 50% of the total job openings were extended to Texas. Other supply states of significant importance were Louisiana with 15%; Missouri 12%; Arkansas 9%, and Florida and Illinois about 5% each.

Partial information had favored the assumption that there have been changing conditions in domestic labor supply. A Benton Harbor area survey revealed that Texas is rapidly becoming a more important labor supply state for asparagus, strawberry, bush fruit and cherry harvests. Its supply of labor to that area has increased by 836% in the last ten year period. Other significant increases were noted as follows: Mississippi 725%, Louisiana 287%, Alabama 244%, Ohio 156%, Florida 72%, Tennessee 66% and Illinois 57%. On the other hand, Arkansas which earlier supplied so many workers for the Benton Harbor area that the term "Arkie" became a common term to describe the labor in the fields and orchards, had dropped 63% in the ten year period. Other states showing a downward trend were Indiana 36%, Missouri 30%, Kentucky 28% and Georgia, 25%.

It was also noted that adult Arkansas crews now dominate the tomato fields in southeastern Michigan where Texas workers rulledten years ago. The Texas family groups have been disappearing from the tomato area since the enactment of Child Labor Requirements under the Federal Labor Standards Act. The harvest season usually lasts from August 15th to October 10th. Growers were unwilling to hire family groups if after about 10 days they had to recruit and hire new workers to complet the harvest season.

A final report on the progress of housing inspections revealed that four hundred seventy-nine camps were inspected by our personnel of which forty-two were determined doubtful and subject to review by health officials. State and County health officials in-

spected three hundred fifty-one camps and reported deficiencies on forty-three. Eight of the latter were given approval after corrective action was completed. The large number of inspections reported by the health officials was due to the fact that Van Buren County has had a housing code for migrant workers for the past three years and such inspections have been made by Van Buren County Health officials. It was only a problem of correlating the new standards with those already in use in the county. However, budgetary allocations in this county are still insufficient to allow complete inspection of all camps on a yearly basis.

Except for work in greenhouses, sorting and packaging stored fruit, potatoes, and vegetables, very little farm activity occurred during January, February and March. Cold weather and snow curtailed pruning, dormant spraying, mulching and cleaning orchards and fields during this early period. Michigan's major agricultural activities started in April and ended in November. A report of the monthly labor situation and conditions during these months follow:

April was ushered in under improved weather conditions, although some southern counties still reported snow on the fields. Such activities as pruning and cleaning of fields and orchards which were curtailed due to adverse weather conditions experienced in February and March, were greatly accelerated. Very little labor from southern states was moving into Michigan. The tempo of local recruitment was accelerated even though the quality of available labor appeared to be below average and labor turnover increased rapidly. Mid-April brought somewhat below normal temperatures and retarded plant development. These conditions continued to prevail until the last days of the month and reduced labor needs during this period.

Early part of May saw little change in temperatures. The harvest of asparagus was delayed from one to two weeks. Wet weather curtailed planting and transplanting of vegetables. Migrant workers were arriving in fewer numbers than experienced in the past at this time of the year. More time had to be spent in rearranging work schedules to get the work done with the limited availability of labor whenever weather or soil conditions provided the opportunity for planting, cultivation or harvest. Weather conditions improved during the latter half of the month. Labor shortages developed in asparagus harvest as well as in planting and cultivating activities. However, planting and transplanting was still hampered somewhat by wet fields in some localities. Plans had to

be accelerated to import Mexican labor to take care of sugar beet blocking, thinning and weeding as damp weather also stepped up weed growth. Migrant labor from the southern states continued to arrive at a much slower pace than experienced the previous year. The prospects for a bumper strawberry crop appeared to aggravate the concern about labor shortage for harvest. Plans were finalized to use radio facilities in the southern states as an aid in recruitment of additional workers. However, as the month ended, below normal temperatures again retarded all plant development and crop maturity. It was felt that advertising in the southern states should be put off until a later date.

June arrived with no improvement in weather conditions. Strawberry harvest started one week to 10 days later than the year before. Reports were being received that adverse weather conditions in the southern states was curtailing agricultural activities in that part of the country. Labor commenced to arrive in much greater numbers than anticipated earlier. In addition continued cold and wet weather retarded maturity of strawberries as well as planting and weeding of vegetable crops in our state. Therefore, the expected shortage of 2,500 strawberry pickers and 500 row crop weeders did not materialize. Available labor from domestic sources was able to complete most activities without crop losses and use of foreign workers was confined primarily to blocking and thinning sugar beets.

During the first part of July, some farmers were still planting vegetables. However, it was too late to plant most crops and many acres were left idle. As the strawberry harvest ended, raspberry, blackberry and cherry harvests followed. Pickle, blueberry and peach crops were also rapidly reaching maturity. The outlook of cherry crop production in the central western part of the state was poor or about 30% of 1959. Conferences were instituted with growers in this area to bring about a suitable picking wage rate offer to increase the desire of job acceptance by workers. In other areas, the cherry crop yield outlook remained very good.

Additional workers were located on the Eastern Seaboard as low market prices curtailed early potato harvest activities. Recruitment and referral by Ohio and Indiana agencies produced hundreds of additional pickers for Michigan cherry orchards. These extra sources of labor aided in curtailing the number of foreign worker needs in the cherry harvest to about 200.

To further ease the labor shortage during the peak period, which

was expected around July 15th, the pickle and blueberry crops were about 10 days late in maturing and about 90% of the snap bean crop was machine harvested.

Blueberry and pickle harvest started in volume after the 20th. By that time cherry harvest was past peak in the southwestern part of the state. Cherry pickers who were finishing in the smaller orchards were quickly assigned work in blueberry harvest. For the pickle harvest, it was again necessary to recommend certification of some 11,500 Mexican Nationals to work in a stooping position for long periods of time. Because of physical demands, domestic workers continued to consider this type of work to be the least desirable.

By August 1st the peak of the cherry harvest was reached in the northwestern areas of the state with an estimated employment of 28,000 pickers. However, in other parts of the state, another 18,000 were still picking cherries. The cool weather during the first part of August helped to prolong the cherry harvest but it also retarded maturity of the pickle, blueberry, tomato and peach crops reducing potential earnings in the first two crops and prolonging the starting date of the latter. Weather turned warm around the 10th greatly improving earnings and employment prospects. This warm weather continued during the rest of the month and kept labor demands at a high level.

As September took over, labor shortages were felt in the tomato fields of southeastern Michigan. This was due to the fact that migrant families were leaving Michigan for their homes while a bumper picking was being experienced. Intensified recruitment brought on some behavior problems for the local police officers as well as labor turnover and maintenance of sanitation standards problems for growers. However, such episodes increase at any time a labor shortage exists and unqualified workers enter the labor market. About September 11th the weather turned cool. The continuation of this condition brought the pickle harvest to a quick end. It also slowed maturity of tomatoes and reduced labor shortage pressure. General gray frosts at the end of the month completely terminated the harvest of tomatoes and other tender vegetables.

By October 1st, apple and potato harvest did not as yet reach any volume due to lack of sufficient color in apples and potato crop maturity. Some of the scheduled groups left the state because of inability to find full time employment on these activities. When

harvest peak in apples and potatoes was reached about October 15, temporary labor shortages were experienced in some localities. These were aggravated by lack of suitable housing on some farms. Continued ideal harvest conditions throughout the remainder of the month helped to alleviate crop losses. It allowed for reassignment of many workers to fields and orchards not having housing facilities while continuing to use the old housing.

As of Wovember 1st, many acres of potatoes, late vegetables and apples still remained to be harvested. Unseasonable low temperatures during the first week damaged some apples, potatoes and late vegetables. However, returning warmer weather permitted the salvage of most crops without any serious losses.

PROCESSING

Processors did not report any labor shortage problems. The inclusion of specific test batteries in the selection process appears to have improved quality of production workers and reduced labor turnover. Many of the male adult workers formerly recruited for cultivation and harvest work in the fields who were unable to successfully adapt themselves to such work were given an opportunity on dock and in plant work. These have been returning each year and have relieved adult-male labor shortages experienced by processors in the past.

COMMUNITY - EMPLOYER - WORKER RELATIONS

Continued interest was shown by governmental and private organizations to improve educational opportunities for migrant children. Special school sessions were conducted by the Board of Education in Hartford and Keeler. These were operated from April 1st to June 1st, and from September 7th to November 1st. A total of 54 students were enrolled in Hartford and 35 in Keeler from grades one to six inclusive. A rental fee of \$2.00 per month was charged for books and supplies. However, in hardship cases the school district absorbed the cost. The enrollment at Hartford remained fairly constant but enrollment at Keeler dropped to 9 by mid-May and also dropped sharply by the end of September. It appears doubtful that Keeler will be reopened in 1961. Available informa-

tion does not disclose a reason for this drop in enrollment.

Catholic clergy and lay organizations set up summer school facilities for an estimated 1,100 migrant children from the first through eighth grade in the Saginaw valley, southeastern and central portions of the state. Teaching was directed primarily toward elementary and religious education. School sessions extended from four to seven weeks. The length of session depended largely upon the length of stay of the migrants in a given locality.

The Michigan Migrant Ministry operated two child care centers, one in Berrien and one in Van Buren County. Other educational efforts were directed primarily toward religious training. However, some of the County groups undertook projects of reading assistance to help school age children as well as adults in reading comprehension.

While needy migrant families did not receive direct aid from a governmental agency because of residence provisions required by law, some received help from private organizations connected with the various church groups. Except for a short time during the early part of the season, work opportunity remained high throughout the year, thus greatly minimizing the need for aid.

Medical and hospital services continued to be offered in some areas. The Guadalupe Clinic at Saginaw was again operated for migrants in the Saginaw valley and adjoining areas under the auspices of the Saginaw Apostolate. In a few counties the health and welfare departments offered medical and hospital assistance to proven needy. There were several reports of unpaid doctor and hospital bills that were written off. Other bills were paid by employers after the workers had left. A check of payroll records does not appear to substantiate the contention that failure to pay is always due to low earnings. Public health nurses continued to visit family labor camps to offer medical aid and education on health care.

Recreational programs were sponsored by many communities. The largest single program was the Hart Fiesta. The second largest was the Fiesta at Alma. Local groups of the Migrant Ministry provided free movies, sponsored baseball and other athletic programs in many parts of the state. The group in the Grand Traverse area continued a program of an all migrant Girl Scout Troop started a

year ago. It appeared that the community interest in recreational facilities for migrants was definitely forging ahead with increased vigor.

The short employment periods as well as small employing units precludes the hiring of personnel, accounting, engineering and similar technical staffs in the agricultural field. The farmers themselves do not possess the necessary knowledge to cope with problems associated with labor-management, personnel services, mediation, human engineering, job evaluation, training, etc. Therefore, it did not appear unusual when agricultural employers sought aid from the Farm Placement Service on these matters. It is believed that pamphlets or leaflets indicating source of problems arising from poor selection techniques and antiquated labor-management practices together with suggested solutions would aid greatly in improving the worker-employer relations in the agricultural field.

Worker housing improvements continued to be hampered by: (1) lack of practical provisions for long term loans at low interest rates; (2) public releases on mechanical developments which predict quick solutions to farm labor problems; and (3) lack of stock plans for multipurpose buildings which would also be suitable for short term housing or stock plans for converting unused farm buildings into low cost, yet suitable housing units.

Failure of many workers to properly maintain good housing is another handicap that hampers construction of suitable housing approaching the higher living standards. As a result some employers who have recently built good housing are insisting on a rental fee to help finance the high maintenance cost. This idea of charging a rental fee appears to be gathering momentum in more than one locality in the state.

WAGE DATA

The minimum of the prevailing range paid to unskilled seasonal workers employed on hourly rated jobs, increased five cents per hour. This was largely attributed to the increase in the hourly rate established for sugar beet blocking, thinning and weeding under the Sugar Act. Except for fields and orchards with below average conditions piece rates did not register any increase over the previous year. Survey findings continued to substantiate pre-

vious contentions that average earnings potential on piece rated activities exceeded the prevailing hourly rates on same activities.

A total of 60 wage surveys were made. This resulted in wage findings covering 77 wage classes. These surveys did not reveal any common practice of paying a different rate to local workers than was being offered out-of-area workers. On hourly rated jobs, they did reveal many instances of negotiated wage rates paid to entire family groups. These were generally lower than those offered adult workers. The criteria used in arriving at such negotiated wage rates appeared to be the proportion of children to the adults in the group. It was also apparent that many growers offered a range for hourly rated work to adult crews. The specific rate paid to an individual depended largely upon his or her ability to produce. These practices added considerable complexity in determining prevailing rates of pay.

Except for fields and orchards with below average conditions the above mentioned variables did not appear to plague findings on piece rated activities. However, some crew leaders withheld a portion of the rate from the workers to defray cost of travel and supervision and quoted the lower rate as the existing rate. Another problem encountered in making prevailing wage findings on piece rated activities was the attempt to calculate average hourly earnings since no records of hours of work were kept either by the employers or the workers. Therefore, the average hourly earnings had to be computed from estimates of hours of work given by the workers at the time of survey interview. In addition, there was no feasible way of segregating hours of work and earnings of adults from those of children on family groups.

One interesting development disclosed in attempting to compute average hourly earnings on piece rated activities was the fact that in some instances the average earnings of family groups was higher than that of adult workers employed on the same activity and even in the same field.

The above enumerated conditions made field contact surveys mandatory in order to obtain more accurate information on which to base findings of prevailing conditions in any area. This in turn created other problems as growers and/or crew leaders did not favor interview of workers during working hours. Interview of workers in nearby towns at night did not produce the required information as many did not know the name of the employer or even the exact location of the farm. In addition, many of those con-

tacted were not employed on the activity being surveyed. Therefore, contacts had to be made at housing locations during off-work hours.

The results of wage surveys in each area follow. Since accurate hours of work on piece rated activities were not available, thus increasing the possibility of error, the hourly earnings are shown as a range rather than a weighted average.

ACTIVITY	PREVAILING HOURLY RATE	PREVAILING PIECE RATE	HOURLY EARN- INGS RANGE ON PIECE RATES
BENTON HARBOR AREA (5-23-01) Includes Counties of: Berrien, Cass, St. Joseph, Branch, Van Buren and Kalamazoo	920-	ANTONIA Reference Reference	THE PLANT OF THE PARTY OF THE P
Cutting Asparagus Hoeing & Weeding Row Crops Picking Strawberries	75¢ 75¢	Uncapped 50¢ per 8 qt. Capped 80¢ per 8 qt.	75¢ to \$1.30
Picking Raspberries	958 (0) 172 11 - 00 13 - 30	5¢ per pint 7½¢ per qt. 7¢ per 1b. 65¢ per 8	
Picking Tart Cherries	SO IT	60¢ per lug 25# 30¢ per 10	62¢ to \$1.18
Picking Blueberries Picking Peaches Cutting & Trimming Cauliflower & Cabbage	80¢ to 90¢	qt. pail 7¢ per lb. 20¢ per bu.	50¢ to \$1.20 75¢ to \$1.20
Picking Tomatoes (Fresh Market) Picking Tomatoes (Processing)	75¢ 85¢	15¢ per lug 12¢ per hamper	75¢ to \$1.20
Cutting & Trimming Celery (Handle-sort-store) Fruit Picking Apples Grape Harvest	85¢ 80¢ to \$1.00 90¢	20¢ per bu. 25¢ per beer lug 20¢ per Welch lug 12¢ per jumb	60¢ to \$2.00
Harvesting Potatoes - Pick Up	85¢ to \$1.00	basket 10¢ per bu.	71¢ to \$1.78 78¢ to \$1.50

regulation of the control of the control of	PREVAILING	PREVAILING	HOURLY EARN- INGS RANGE ON PIECE RATES			
ACTIVITY	HOURLY RATE	PIECE RATE				
MUSKEGON AREA (5-23-02) Includes Counties of: Oceana, Newaygo, Muskegon, Ottawa, Kent, Allegan & Barry	une al ager	arited in va particular policy	incorport			
Cutting & Snapping Asparagus Picking Gooseberries	80¢ to \$1.00	2½¢ per 1b. 40¢ per 6 qt.	80¢ to \$1.20 40¢ to 75¢			
Weeding, Hoeing & Training Pickle Vines	80¢	qu.	40¢ to 13¢			
Cutting & Handling Celery Trim & Prune Pine Trees	85¢ 75¢ plus 25¢ bonus		Maria In			
Cut & Pack Head Lettuce	AND THE RESERVE OF THE PARTY OF					
Hoeing Vegetables Handle & Haul Hay	80¢ \$1.00					
Picking Cherries	\$1.00	60¢ per lug 2½¢ per lb. 30¢ per 10				
Topping Onions	054	qt. pail 10¢ per bu.	55¢ to \$1.05 50¢ to \$1.30			
Spot Picking Peaches Strip Picking Peaches Topping Finger Carrots	85¢	20¢ per bu. 25¢ per 60 #	70¢ to \$1.10			
Picking Prune Plums	THE THE	crate 35¢ per bu.	90¢ to \$1.25 \$1.10 to \$1.15			
Picking Damson Plums	AND AND	25¢ per 25 lb. lug or				
Digging & Cleaning Flower Bulbs Cutting & Trimming Cabbage &	85¢	1¢ per 1b.	50¢ po \$1.00			
Cauliflower Handling Fruits & Vegetables	85¢ \$1.00	2017.23	planta seriesta			
Hand Pick Up of Potatoes Crate & Handle Potatoes	85¢	8¢ per bu.	80¢ to \$1.10			
Spot Picking Apples Strip Picking Apples	\$1.00	20¢ bu.	75¢ to \$2.00			
1st and 2nd Picking Blueberries Last Picking Blueberries	the Market	7¢ per 1b. 8¢ per 1b.				
MANISTEE AREA (5-23-03) Includes Counties of Manistee Wexford, Missaukee, Mason, Lake, Osceola, Clare, Mecosta and Isabella	3 100 2814 1 6290 2844 1 6290	COLUMN CARLES				
Picking & Capping Strawberries	4	5¢ per 1b				
Hoeing & Training Pickle Vines	80¢	1¢ bonus 5¢ per lb	45¢ to \$1.25			
	Sent Total	1¢ bonus	45¢ to \$1.25			
TRAVERSE CITY AREA (5-23-04) Includes Counties of Emmet, Cheboygan, Charlevoix, Antrim. Otsego, Benzie, Grand Traverse, Kalkaska, Leelanau			in the			
Picking Cherries Hoeing & Training Pickle Vines	75¢	60¢ per lug	60¢ to 90¢			

Annual Company of the	PREVAILING	PREVAILING	HOURLY EARN- INGS RANGE ON PIECE RATES		
ACTIVITY	HOURLY RATE	PIECE RATE			
BAY CITY AREA (5-23-05)	Carley sour	Millionder	Denistra		
Includes Counties of Gladwin.					
Arenac, Midland, Bay, Saginaw, Tuscola, Huron, Sanilac, Genesee,					
Tuscola, Huron, Sanilac, Genesee,	LIGHTS AND IN	A LALES VIII	Jetushin.		
Lapeer and St. Clair	multiple no recommendations	ONE THE STREET	DHG DUGET		
Blocking & Thinning Sugar Beets	ON DESCRIPTION	\$13.00 per	JOI SOUNT		
Brocking & Infiniting Sugar Beets	of Senillastic	acre	60¢ to \$1.05		
Hoeing & Training Pickle Vines	85¢	\$5.00 to \$9.00			
THE ISSUED OF STREET, ST. ST.		per acre	75¢ to \$1.40		
Hoeing Field Beans	90¢, 95¢, \$1.00		054 to \$1 45		
Hoeing Sugar Beets	004	\$5.00 per acre	85¢ to \$1.45		
Cut, Pick, Handle Vegetables Spot Picking Apples	90¢ 90¢	BIBLE COMMENT	CONTRACTOR OF THE PERSONS		
Strip Picking Apples	304	20¢ per bu.	90¢ to \$1.60		
Picking Up Potatoes	O THULLDAY DO	8¢ to 10¢	504 00 41.00		
develop now plants and trees	al boun 7007/	per bu.	\$1.10 to \$.200		
Dumping, Grading & Handling	WAT PARTIES	Hon The troit	to mid he		
Pickles	\$1.00	and been meaning	THE PARTY OF THE P		
Picking Strawberries	TITA STITE	6¢ per qt.	60¢ to 86¢		
Cutting Bale & Load Hay	\$1.00	1001 1001 1	BELLIONE .		
ANGING ADEA (5-92-06)	The state of the s	O' ON I STREET	By miliate		
LANSING AREA (5-23-06) Includes Counties of Montcalm,	A she tank the	AL DESCRIPTION OF	chaire male		
Ionia, Shiawassee, Ingham,	nowen anna as	sendos ax sent	ALL DES LABOR		
Calhoun, Hillsdale, Gratiot,	Tabor Jodal	in erus Justa	oder "Bergu		
Clinton, Eaton, Livingston,	tile mrops. T	HE PROPOSED	FILE PROF		
Jackson	and the arts	in untroop, in	medilities.		
two to ten the tree ter	do Lavah To S	CERTAIN IL COMMO	PERSONAL PROPERTY.		
Finger Thin & Hoe Sugar Beets	The state of	\$13.00 per			
The state of the s	SINGLE OF A	acre	60¢ to 95¢		
Hoeing & Weeding Sugar Beets	Part and America	\$8,00 per	754 to 01 00		
(no finger thinning) Hoe & Train Pickles	89¢	acre	75¢ to \$1.30		
Packing & Loading Lettuce	\$1.00	a laylandon	THE PERSON NAMED IN		
Spot Picking Apples	42.00	25¢ per bu.	\$1.00 to \$1.60		
Strip Picking Apples	The same of the same of	20¢ per bu.	\$1. 10 to \$2.00		
Handling & Loading Apples	\$1.00	THOTALADONNO			
Handling & Loading Potatoes	\$1.00	tide that the one			
Harvesting Potatoes (Hand Pickup)	THE RESERVE OF THE PARTY OF THE	8¢ per bag	75¢ to \$1.30		
Handling & Storing Onions	\$1.00	A PROPERTY OF STREET	** ** ** **		
Field Decking Onions	\$1.00	1¢ per bu.	\$1.00 to \$2.75		
Topping Large Yellow Onions	STATE OF STREET	10¢ per bu.	70¢ to \$1.00		
Topping Large White Onions	Daniel Alex	15¢ per bu.	55¢ to 90¢		
PONTIAC AREA (5-23-07)	O DIRECTOR OF THE PARTY OF THE	Thornton Links	WALL WILL		
Includes Counties of Oakland,	I A LESS OF THE SECOND	111111111111111111111111111111111111111			
Macomb, Washtenaw, Wayne,	to reminding	WALKSTIN WALL	STEEL STREET, N		
Lenawee, Monroe	Chargement Han	a deposit and the state of	OH LIGHT		
Nuncowy I show	\$1.00	A. Charles L. S.	THE PARTY OF		
Nursery Labor Harvesting Truck Crops	85¢	TO OUR DESIGNATION OF	Allega groups I		
Picking Peaches	\$1.00	The Land Action	A PARTY OF THE PAR		
Picking Tomatoes	THE PARTY OF THE P	10¢ per box /	7 1430 SQ .		
		2¢ bonus	65¢ to \$1.56		
Loading Tomatoes	THE DWITS 19163	1¢ per box	80¢ to \$1.80		
Spot Picking Apples	\$1.00	Sell o Breen To			
Strip Picking Apples	Personnia tras	20¢ per bu.	35¢ to \$1.60		
Sorting, Loading & Storing	4. 00	Track Idea	sould not		
Apples	\$1.00		Control of the last		
Harvesting Vegetables (Truck	85¢, 90¢ &	THE COLF IN	man and		
Crops)	\$1.00	Bald Sald Sald	util lebeg ()		
Talouts & terns vino tot us	φ1.00	Action of the second			

SCIENTIFIC AND MECHANICAL DEVELOPMENTS

GENERAL: Continuous reduction in quantity and quality of domestic labor for seasonal agricultural activities, price reduction for products to growers and pressures to end the foreign labor supply appear to have influenced the acceleration of scientific development in horticulture, chemistry and machine to reduce labor requirements. The more important obstacles facing the progress of development appear to be (1) inadequate funds for engineering research; (2) uncontrolled weather conditions, (3) variable soil conditions; and (4) apparent need to develop new plants and trees to aid mechanical and chemical ingenuity. At the same time increased acreage and/or yields will have a tendency to offset any significant labor reduction effected by scientific development during the next two years. Experience indicates that progress will be slow. It appears that weather will continue to play the usual important role on labor demands.

A report on the progress of development of each idea follosw:

Sugar Beet Blocking and Finger Thinning: Several attempts have been made during the past several years to adapt mechanical devices developed and used in the western sugar beet growing areas. However, difference in soil composition as well as uncontrolled moisture have been the chief obstacles curtailing the adaptation of such machines in Michigan. The need to plant and cultivate other crops at the same time the mechanical thinners should be used also appears to have been a deterrent in furthering the development of suitable mechanical equipment.

The monogerm seed apparently showed greater possibilities of circumventing the obstacles mentioned above. However, after two years of experimentation, it has been found that ideal weather and soil conditions are a must for good germination. Also without proper use of herbicides for weed control, the full saving in labor requirements is not realized.

In 1959 very little seed was available. In 1960 about 20% of the acreage was planted but only under a special

agreement to follow the planting instructions outlined by horticulturists. In 1961 it is expected that enough seed will be available for about 40% of the acreage.

It is still difficult to estimate the size of reduction in labor requirements due to monogerm seed. Some sugar beet processors are hopeful of reaching a 40% figure. In 1959 the work force was 6,999 and in 1960 it was reported to be 6,170. This would indicate a reduction of about 800 workers. However, it must be realized that the planted acreage in 1960 was about 10,000 acres less than in 1959. At the same time the cold wet weather prevailing at planting time was not favorable for efficient use of pre-emergence herbicides for weed control.

Snap Bean Harvest: The use of a mechanical bean harvester has made good progress during the last three years. This was partially due to the fact that processors have not assisted in recruitment of harvest labor as they normally did for other vegetable crops. The responsibility thus fell on the growers and the state agency. Competition with the cherry harvest often created labor shortage problems for the first picking.

Even with planned planting dates, weather still plays an important role. In 1959 the continued warm-humid weather resulted in the early and later plantings maturing at the same time and machines were not able to handle the harvest. The machine cannot be used in wet soils. In addition there have been reports of complaints from growers that even when they plant the new prescribed varieties, the net return per acre fell below that of other competing crops. Whether this will adversely affect future acreage contracts significantly is not yet known.

The reduction in labor requirements for picking snap beans fell from an all time high of 14,000 in 1956 to 2,850 in 1960 with another reduction of 800 expected in 1961. As long as the tomato harvest reaches volume by August 15th, the displacement of migrant workers by this machine will not be a problem. In fact, it should add in curtailing labor shortages commonly experienced in the tomato harvest. It has also helped to curtail labor shortages in the blueberry harvest.

However, it has reduced job opportunities of local workers dependent wholly, or by choice, upon snap bean harvest. It is estimated that about 5,000 local workers, mostly youth and family groups have been affected by this loss of job opportunity. In addition there may be some difficulty in recruitment of cherry pickers for additional acreage coming into bearing because of insufficient work opportunity following the cherry harvest to provide continued work in Michigan.

Since the machines are owned by processing firms, custom use will be limited to their own contracted acreage. Any good operator of farm machinery is able to handle the snap bean harvester and requires only the assistance of one unskilled worker. Under favorable conditions one machine is able to harvest 200 acreas per season.

Cherry Harvest: Experimentation has been carried on with a shaker type machine adapted from the ones used for nut harvests. About 30 such machines were used in 1960. However, no known cherry orchards have been completely harvested mechanically.

The older commercial bearing orchards will have to be trimmed to fit the machine. To prune properly, some trees may lose as high as 70% of their present yield potential. The trimming of young orchards to meet the machine demands is not expected to significantly reduce yield potential. Also, there has been some reports of wood injury but this has not been confirmed. Growers will have to haul the cherries in tanks partially filled with cold water to reduce discoloration of bruised cherries. However, due to the fact that it is much easier to unload cherries from water tanks than from lugs and even hand picked cherries are often bruised, this equipment will be more easily accepted. For efficient mechanical harvest, the cherries need to be fully ripe. It appears that some spray will have to be developed to loosen the cherries from the stems to aid in the harvest.

It is estimated that a machine with a crew of eight (one operator, one truck driver and six laborers to handle apron equipment and dump cherries) will harvest about six tons per day in an orchard having a yield of two tons per acre. Normally this production would involve about 48 man days by hand picking. Generally the grower or his farm hand operate the tractor-mounted shaker and no special skills not normally possessed by the average worker would be required for the other work.

It is estimated that less than one percent of the 1961 cherry crop will be mechanically harvested. With increased acreage no displacement of workers is foreseen during the next two years because of mechanical harvest.

The cost of machine and equipment precludes purchase by small growers. The large growers will not purchase more machines than required for their own purpose. Therefore, no custom work is anticipated for a few years.

Onion Harvest: Due to poor market prices experienced during the past few years coupled with wage rate increases, mechanization development had been accelerated for harvesting of onions.

The present machine cannot be successfully used on white onions as they bruise easily and bruises cause rot in storage. It has been used primarily in the harvest of the yellow globe onions. However, even on yellow onions the reduction in price due to loss in quality is almost as great as the additional cost for hand topping. The cost of machine precludes purchasing by small growers and large operators have only enough machines to take care of their own crop. The season must be dry in order to top the onions cleanly and curtail extensive bruising.

The larger combine has a daily topping and loading capacity of 3,000 bushels. The crew consists of one operator, one tractor driver and one assistant operator. Any farm hand familiar with other farm machinery can operate the harvesters. The production of 3,000 bushels compare with that produced by 35 man days under the old hand harvest method.

About 50% of the crop was harvested by machine in 1960. This is expected to remain stable during the next two years. It is estimated that the machines have reduced labor requirements by 2,000 workers during the last three years. These workers have had the opportunity for

employment in other activities.

Pickle Harvest: Several types of machines have been in stages of development during the past four years. Changes and adjustments made in 1960 appear to have resulted in a setback of progress. Picking efficiency was reduced and greater bruising of the pickles as well as more damage to the vines were also noted. There appears to be no doubt that a new strain of pickling cucumbers will have to be developed to meet the requirements of the machine. At present the most logical approach would be to develop a strain with a productivity high enough to make the once over harvest practical. This machine development still appears to be about five years from realization of a significant labor reduction in the pickle harvest.

Blueberry Harvest: Experimentation with a vibrator type machine (shaker principle) continued throughout the 1960 season. Various types were used. The usual larger type machine needs a crew of one operator, four non-skilled workers to operate the heads and two or three unskilled workers to handle the aprons to catch the berries as well as to dump berries into containers. In addition another 6 to 12 workers ard required to run the cleaner, sort and package the berries. Such a crew will harvest an equivalent to that of 30 hand pickers. The mechanized system is expected to reduce harvest costs by 25%.

The harvester has been most successful on pooryielding fields and for last pickings. The bushes and berries must be dry which limits the hours of daily use of the machine. Most of the berries should be ripe which results in many berries being over-ripe. Some chemical spray needs to be developed to produce more uniform maturity to increase feasibility of mechanical harvest for picking heavy yields.

Between 10% and 12% of the 1960 acreage was harvested by machine. The harvester costs about \$2,000.00 and cleaner \$1,500.00. In addition two tractors are required, one to pull the machine and one to pull trailer with berries to the packing shed.

It is not expected that significant labor reduction for

first and second picking will take effect during the next two years. It will be used primarily on fields of low yields and last picking where picking costs increase sharply and labor turnover is extremely high.

The machine lends itself to successful custom work. However, it is not expected that the major portion of the berries will be harvested under the custom work plan during the next several years.

Potato Harvest: The potato harvest combine was first noted four years ago. There are several different types in use. It is estimated that about 4,200 hand pickers have been replaced. The newly designed two row harvester with elevator loaders are capable of harvesting about five acres per day or from 1,300 to 2,000 bushels per day depending on yield per acre. The machine requires a skilled operator. However, a grower or farm hand who is capable of operating other farm machinery is also able to operate the harvester. In addition four to eight unskilled laborers are required to remove stones and trash from conveyors, attach and detach bags or crates as well as pick up stones ahead of the machine, if necessary.

The machine does not appear to bruise the potatoes. Stones cause breakage of sprockets and chain drives. The cost of machine is from \$12,000.00 to \$15,000.00 plus repairs and replacement parts. At this rate the savings on labor costs have to be spread over a seven year period in order to pay for the machine. By that time the harvester will no doubt be obsolete. The weight of the harvester precludes its use on wet ground. Rocky soils common to many potato growing areas are its other main problem. At present, it appears that its chief use will be by the largest growers on soils fairly clean of rocks.

In spite of its development over a four year period only about 11% of the potato crop was harvested mechanically in 1960. The outlook for the future appears that the increase will rise no more than 2% during the next two years with little change in hand labor requirements.

The machines were used about 15 days during the 1960

season. The owners confined all harvest work to their own farms. Custom work is not expected to take place during the next few years.

Carrot Harvest: A machine similar to the sugar beet harvesters has been slowly adapted to carrot harvest. About 50% of the finger type carrots and 40% of the processing carrots were mechanically harvested in 1960. The machine with one operator, one assistant, one tractor and one truck driver is able to harvest about one and one-half acres per day.

The machine has not displaced any hand labor. The increase in acreage is due to the machine which reduced costs for competitive market. Large acreages were not grown prior to introduction of the harvester. In fact it appears that the machine has created jobs for 300 women and 25 men in processing and packaging activities.

At present there appears little likelihood of use of these machines for custom work on a commercial basis.

Handling Equipment: Many different ideas or inspirations have resulted in developing equipment to reduce the cost of handling of harvested crops. While no one idea appears to be in focus, the total labor requirements are estimated to have been reduced by over 600 workers. In addition these ideas have reduced required space for storage. One fork lift tractor operator can easily do as much as six workers in loading or unloading and storing potatoes, apples, onions, etc. The cost of equipment and pallet boxes limits its use to large operators.

Asparagus Harvest: Several machines were tried in 1960. However, the damage to crops and resultant reduced yields were so great that the expiriments were quickly abandoned.

Apple Harvest: The shaker equipment tried on cherry harvest has also been tried in the harvest of apples for processing purposes. It has been found that new types of aprons will have to be designed to prevent deep bruising. No workers have as yet been displaced and this is being mentioned only as a remote possibility for the future. Less than 20% of the apples grown in Michigan are picked solely for processing.

Plum and Pear Harvest: The shaker equipment being developed for cherry harvest have also been tried in the plum and pear harvest. The results have been encouraging. However, the primary plum and pear growing areas are not located near the large cherry growing operators making the possibility of custom work more difficult. It is not expected that any significant number of workers will be replaced by machines during the next few years as most growers have small orchards.

OUTLOOK FOR 1961

Present information indicates that seasonal labor requirements will be influenced in the various reporting areas by the following factors.

- If temperatures during the strawberry harvest period are higher than the below normal experienced in 1960, the Benton Harbor area will need about 1,500 additional pickers.
- 2. It is not expected that low spring temperatures will repeat and seriously damage the cherry crop production in the Muskegon area. Therefore, an additional 2,000 cherry pickers over that employed in 1960 will be required to meet harvest demands in this area.
- 3. The increased sugar beet acreage will require about 250 additional workers in the Bay City area, 100 in the Lansing area and 100 in the Pontiac area for blocking, weeding, thinning and hoeing operations.
- 4. Increased number of peach trees coming into bearing is expected to raise the requirements of peach picking hands by 300 in the Benton Harbor area and 100 in the Muskegon area.
- 5. New firms and increased acreage being proposed by the old pickle processors is expected to increase acreage in the Bay City area by 500, Muskegon area 200 and Lansing area by 400. At 250 bushel yield per acre and allowing 400 bushels for one qualified worker picking pickles on

a six week basis, labor requirements for this activity are expected to increase by over 250 in the Bay City area, 125 in the Muskegon area and 200 in the Lansing area. Past experience indicates that domestic workers remain only long enough to average only 150 bushels per worker. Therefore, the number would be considerably higher if these factors were fully considered.

- 6. The mechanization of the snap bean harvest activity is expected to release about 1,500 to 1,800 additional workers, primarily large adult crews, for tomato harvest in Ohio and Indiana in addition to providing a sufficient work force for the tomato harvest in Michigan. These workers will start to become available about August 1st from the cherry orchards in the Muskegon area and about August 10th from the cherry orchards in the Grand Traverse area.
- 7. In spite of the anticipated increased unemployment rolls of Michigan's industrial labor force, during the first six months of 1961, no significant increase in number of qualified and interested seasonal agricultural workers is expected from this source. This belief is based upon 1958 experience when unemployment was at a higher level and for a longer period of time.
- 8. Some reduction in labor normally supplied by Texas is anticipated due to increased pressures by local agricultural organizations in that state to hold the labor there and by heightened interest of California employers in Texas labor.
- 9. Except for a slight reduction in labor requirements for snap bean harvest, the need for other seasonal crop activities not mentioned above are expected to show no change from that of 1960.

YEAR-ROUND FARM LABOR



The demand for qualified year-round farm hands and/or couples continued to exceed the supply throughout the year. This shortage appeared to be greater for the tree fruit and dairy farms. Excessive use of alcoholic beverages continued to lead the causes of employment termination. Abuse of farm equipment appeared to be the second major reason.

Slightly over 900 openings for year-round jobs were listed with our agency. This resulted in over 700 placements. Many other openings were listed in the want ad columns of local newspapers and farm publications.

It normally requires one year of on-the-job training to develop a raw recruit into a capable fruit or dairy farm hand. Steps are being taken by some farmers and county agents to improve the training program. That is, combine short term class study with on-the-job training and thus reduce the length of time required to produce skilled workers. It is hoped that the shortened training period may heighten interest and reduce the apparent shortage of qualified workers.

Average wage rates for the better qualified workers appeared to register a slight increase. On others, they showed a slight decline in some areas but registered no change on a statewide basis. The average hours of work ranged from 200 to 260 per month. The hours of work also appeared to influence the wage rates. The weighted average for qualified single farm hands was \$205.00 per month with board and room and \$235.00 plus house for couples. The wage rates for dairy and tree fruit farm hands appeared to be slightly higher than for general farm hands. Specialists, foremen and managers received proportionate higher rates of pay.

The outlook for 1961 indicates little change in the availability of qualified workers, wage rates, or hours of work. Since year-round hired hands usually operate all farm machinery, continued development in mechanization is bound to effect a slight increase in the need for such workers.

NOTES:

Act No. 251 of Public Acts of 1955 (Michigan)

Section 1. The opportunity to obtain employment without discrimination because of race, color, religion, national origin or ancestry is hereby recognized as and declared to be a civil right.

Section 2. When used in this Act:

(e) The term "employment agency" includes any person undertaking with or without compensation to procure opportunities to work or to procure, recruit, refer or place employees

Section 3. It shall be unfair labor practice:

- (b) For any employment agency to fail or refuse to classify properly, refer for employment or otherwise to discriminate against any individual because of race, color, religion, national origin or ancestry....
- (d) Except where based on a bonafide occupational qualification, for any employment agency, prior to employment ... to: (1) elicit any information concerning the race, color, religion, national origin or ancestry of an applicant for employment or ...; (2) make or keep a record of the race, color, religion, national origin or ancestry of any applicant for employment ...; (3) use any form of application for employment, ... seeking to elicit information regarding race, color, religion, national origin or ancestry; (4) print or publish or cause to be printed or published any notice or advertisement relating to employment ... indicating any preference, limitation, specification or discrimination, based upon race, color, religion, national origin or ancestry: (5) establish, announce, or follow a policy of denying or limiting through a quota system or otherwise, employment ... opportunities of any group because of race, color, religion, national origin or ancestry of such group; and (6) utilize in the recruitment or hiring of individuals any employment agency, ... known by such person to discriminate against individuals because of their race, color, religion, national origin or ancestry. ...
 - (g) For any person, whether or not an employment agency, ... to aid, abet, incite, compel or coerce the doing of any act declared by this section to be unfair employment practice or to obstruct or prevent any person from complying with the provisions of this Act or under any order issued thereunder, or to attempt directly or indirectly to commit any act declared by this section to be unfair employment practice.