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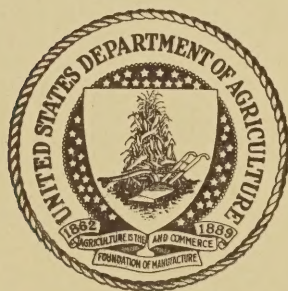
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THE PREVENTION OF ACCIDENTS ON FARMS AND IN HOMES

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This report was prepared as a part of the Bureau's research program on agricultural insurance. Material presented here was assembled in connection with the growing need for additional study of farm safety and for a type of insurance coverage that will give the farmers and their occasional hired hands protection against accidents that is commensurate with the risks involved in their work.

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THE PREVENTION OF ACCIDENTS ON FARMS AND IN HOMES

Introduction

The problem of agricultural accidents becomes increasingly serious as the war activity mounts and the demand grows for greater production of food supplies. Of particular importance is the concern felt for the safety of many untrained recruits in all parts of the country who are replacing skilled farm workers now in defense plants or in the armed forces.

Agriculture has now become highly mechanized, and this has brought with it many new accidents of a serious nature. As inexperienced persons are called upon to help operate these complicated machines, it is evident that the hazards will be reflected in increased accidental injuries. From all sides there is a growing demand that steps be taken immediately to prevent these accidents whenever possible and to provide compensation in the event of injuries.

President Roosevelt pointed out the problem and the need for prevention when he issued a proclamation in the fall of 1941 advocating "a concerted and intensified campaign against accidents" and requested the National Safety Council to sponsor, and all citizens to enroll in, such a drive.

Action for such a Nation-wide effort has begun, with the recent announcement of a proposed 5-million dollar budget to be raised through the newly organized War Production Fund to Conserve Manpower ^{1/} and to be expended under the direction of the National Safety Council.

This report attempts an analysis of farm-and home-accident data collected from all available sources and representing practically all types and conditions of agriculture in the country. Although incomplete in regard to many sections, where information is not being collected, the data is believed sufficient to give basic direction for a generalized approach to the problem of prevention or compensation in the event of accidental injuries.

It is hoped that this report will stimulate State agencies and other organized groups to greater effort toward making the farm population more accident conscious.

^{1/} Irvin, William A., Chairman, War Production Fund to Conserve Manpower.
"Killed, Not in Action: 102,000," New York Times Mag., June 28, 1942.

FARM AND HOME ACCIDENTS

Farm and home accidents have long been recognized as greatly depleting the agricultural resources of the Nation. With a few exceptions, little organized work in either accident prevention or accident insurance has been undertaken for farm workers. Losses in terms of lives, disabled persons, time away from work, and medical expenses, as well as the suffering involved, have been recognized; but little effort has been made to compute the actual costs.

Data have been collected in several States ^{2/} and analyzed by the National Safety Council. While originally treating farm accidents as an occupational classification along with statistics from other major industries, this organization has recently expanded the analyses of the farm group to include accidents that occur in the home and while off duty. As many accidents occur to farm people at times when they are not actually engaged in the industrial act of farming, a program of prevention should include such accidents as occur off the job or in the homes. Recognition must be given to regional differences in conditions under which agricultural production and marketing are conducted, as it is obvious that the hazards vary. For example, the problem of accident prevention in the wheat belt, in which mechanization is typical, differs in some essentials from that in the cotton belt where livestock generally furnishes the motive power. The program needs adjustment to meet special conditions so that the more effective safeguards may be stressed.

The problem is twofold: (1) It is one of prevention by the application of every known safety measure; and (2) it is one of making compensation available to those who suffer accidents, or, in the event of death, indemnification to the beneficiary.

How the War Affects Agricultural Accidents

Depletion of skilled farm labor, noted especially in the vicinity of defense plants, has resulted in the recruiting of large groups of inexperienced workers, chiefly from urban centers, for replacements. ^{3/} These new workers have responded to social pressure and are ready to do their bit toward winning the war, even if called upon to help operate complicated farm machines or to work the kicking mule. Perhaps one of the indirect effects of the labor shortage will be the refusal of farmers to hire inexperienced workmen and instead to extend the energies of themselves and their families to make up for this lack. This in itself would increase the hazard.

^{2/} States leading in gathering farm-accident data are: Kansas, Illinois, Ohio, Minnesota, Alabama, Pennsylvania, Iowa, California, Massachusetts, and New York.

^{3/} Report of Volunteer Land Corps in Vermont, War Board Activities, No. 25, June 22, 1942, U. S. Dept. of Agr. leaflet.

The impact of the war has introduced a problem affecting the liability of farmers in sections where migratory labor has customarily been used in production or harvesting. Many migrants who previously furnished their own transportation cannot do so under present tire and gasoline rationing, and it is necessary for farmers to transport them to and from their work. This involves an added risk to the farmer which he may either accept or insure against. ^{4/}

Longer hours on the job with accompanying exhaustion, unavailability of modern equipment, lack of quickly available medical services in some sections, all resulting from the war demands, multiply the dangers. Then, too, it must be recognized that if a farm worker is injured, production may be reduced even to the extent of abandoning the acreage the worker tended. As accidents will have the effect of lowering production, for which there is a much greater need now than normally, it becomes necessary to institute a program of prevention that will keep accidents from happening.

Availability of Data

Studies of farm and home accidents have largely consisted of the presentation by the States or interested agencies of analyses of short-period tabulations. Although many of these reports have not considered the entire scope of agricultural accidents, which are usually reported in conjunction with allied topics, they have indicated component parts of the problem and have given general direction to an educational type of prevention approach.

Different concepts of the nature of farm and home accidents, chiefly affected by local conditions, are indicated in the organization of the data by States. Different sources were also utilized in obtaining accident data. Some States compiled accident reports from newspaper files and attempted to classify them by causes and the degree of severity on the basis of the information in the news items. In other States records were collected from registrars of vital statistics, State health departments, and assessors' returns, and classified as to kind or cause on the basis of available information.

Although little comparable material for analytical refinement is yet available from those States engaged in collecting agricultural-accident data, reports from workmen's compensation experience with farm labor furnish the basis for a somewhat more comprehensive study of special phases, such as severity and costs. But, as relatively few farmers insure under the State acts, use of the data is limited. For example, this experience may represent a special group, with large holdings and many employees, and may not present the typical situation for farmers as a whole.

^{4/} Harlan, P. W., "Transporting Pickers Involves Another Insurance Hazard," Citrus Leaves, Los Angeles, Calif., June 1942.

For the most part, information that explains precisely the conditions under which the accidents occurred is lacking. In only a few instances are data available as to whether the accident took place while the farmer was engaged in actual farm work or when he was off duty. Because farmers, their families, and their hired men spend much of their time on the farm, it is natural to assume that many accidents occur while they are on the premises but are not actually at work.

Frequency of Farm and Home Accidents

A comparative study of six of the major industries shows that farmers, with an estimated proportion of a fifth of all workers in gainful occupations, sustain a fourth of all fatal accidents. ^{5/} This indicates that farmers are injured more frequently, relatively, than the general average for all major occupational classifications. Approximately 12 million employed agricultural workers suffered 4,500 accidental deaths in 1941, representing a ratio of slightly more than one fatality to 2,500 workers.

There are approximately 30 million farm people, including members of families, but only 40 percent are classed as actual field workers. The total farm population last year, according to the National Safety Council, incurred 18,500 fatal accidents, distributed as follows: In the home, 7,500; motor vehicles, 5,500; occupational, 4,500; and public (not motor vehicles), 2,000. ^{6/} These data show a ratio of approximately one fatality to 1,600 persons, based on the total farm population. The ratio for nonoccupational farm folk, representing housewives, children too young for regular employment, and persons too old for regular duties, was about one fatality to 1,300 persons. Allowing for some duplication in the foregoing classifications and the fact that a complete record of all agricultural fatalities was hardly possible, the data indicate that nonoccupational farm people are more vulnerable to fatal accidents than the group classified as regularly employed.

Few data are available on the frequency of accidents to those carrying accident insurance. Policies under workmen's compensation laws are usually written for a year and are renewed annually. Cumulative claims and policies for several years therefore include some persons who are insured again and again, as well as those who insure irregularly. Four years of experience in Ohio with nearly 10,000 farm policies in workmen's compensation show that during that period 5,623 claims were filed; ^{7/} These claims represented 58 percent, by number, of the farmers insured; however, the actual number of individuals injured was not available, as one individual could have received two or more injuries during the period the insurance was in force.

^{5/} Accident Facts by the National Safety Council, 1942 edition.

^{6/} One thousand of the motor vehicular deaths occurred in the occupational group and are duplicated within those two classifications.

^{7/} Annual bulletins, Ohio Industrial Commission, 1929, 1932, 1939, and 1940.

Ratio of Accidents to Fatalities

Again, few data are available to indicate the relationship between the number of accidents and the number of fatalities. Compensation experience with farm labor in six States, indicated in table 1, shows that the ratio of total claims, which are practically synonymous with accidents, to fatalities was 157 to 1; but data from two States with reports of farm accidents gathered from newspaper accounts showed a ratio of total accidents to fatalities of 14 to 1.

Table 1.- Ratio of farm accidents to fatalities by source of reports

| Source of reports | Accidents reported | Fatalities | Ratio of accidents to fatalities |
|----------------------------------|--------------------|------------|----------------------------------|
| | Number | Number | Number |
| Newspaper clippings <u>1/</u> | 17,765 | 1,313 | 14 to 1 |
| Workmen's compensation <u>2/</u> | 74,488 | 475 | 157 to 1 |

1/ States of Illinois, 1936-41 incl. except Jan., Feb., Mar., Apr., 1941; and Nebraska, fiscal year ending June 30, 1930.

2/ States of California, 1935-40 incl.; Massachusetts, July 1, 1933 to June 30, 1934; New York, 1937-39 incl.; Pennsylvania, 1933-37 incl.; Montana, 1915-18 incl.; and Ohio, 1929, 1932, 1939, and 1940.

The difference in the ratios in table 1 may be explained on the basis of the method of reporting the data. Newspapers were likely to carry items about the more serious cases only with the result that all injuries may not have been recorded. Occupational diseases, where applicable, as well as all injuries, may have been more fully tabulated in the workmen's compensation reports.

Kinds of Agricultural Accidents

As a uniform system of reporting the kinds of agricultural accidents has not yet been developed, available statistics fail to furnish complete comparable relationships.

Most agencies report the kind of accident in terms of the degree of injury as, for example, fatal, permanent total, or permanent partial disability, and temporary disability. Other agencies report accidents in terms of the cause most usually associated with the injury such as falls, handling animals, and using farm machinery. Still others classify accidents as to the kind of hazards involved, such as adequacy or inadequacy of equipment, and mental attitude and skill of the worker. The nature of the activity of the person injured is also tabulated in some instances.

Analyses of 914 fatal farm accidents in Kansas ^{8/} and 309 in Alabama ^{9/} show that farm machinery on the Plains, and livestock in the cotton South, are responsible for the greatest number of deaths. The percentage distribution of fatalities as given by the Kansas Board of Health by type of accident follows: Machinery, 29.2; animal, 19.7; excessive heat, 10.3; falls, 9.4; vehicular, 9.3; lightning, 5.0; and miscellaneous, 17.1. Somewhat different was the percentage distribution by agency of injury in Alabama: Animals, 18.8; falling objects, 17.2; lightning, 15.2; sunstroke, 9.4; vehicles, 8.4; burns, 6.1; falls, 5.2; machinery, 5.2; and miscellaneous, 14.5.

Studies as to where farm accidents occur yield variable results. In Alabama it was found that 84 percent of 1,903 fatal accidents ^{10/} occurred in the home or near the farm buildings, and 16 percent while workers were actively engaged in actual field operations. A study of 388 accidents, including those that were nonfatal, in region III, Farm Security Administration, showed that 66 percent occurred in actual farming operations, 21.4 percent in and around the homes, and 12.6 percent while off the farms. ^{11/}

It is believed that a uniform system of reporting the kind of accident should be adopted so that the data assembled by the various collecting agencies will be comparable. With this in mind, a suggested questionnaire outline for obtaining basic data on all kinds of accidents is given in the Appendix, exhibit IV.

Cause of Accidents

An understanding of the fundamental causes of accidents is requisite to the formulation of a program of prevention. If a certain chain of conditions and events lead up to the accident, it is important to learn why they were there and the part they played in causing it. Note must be made, in addition, of the habits of farm people, and their reaction to hazards; also the extent of their ability to recognize the hazards and to remove them or to circumvent the event by planning for safety. Data on mental attitudes and skills of agricultural workers, hazardous conditions of equipment and how they are involved in accidents, are difficult to analyze. In industry, improper attitude, lack of knowledge, and hazardous arrangements, contribute heavily to accidents. ^{12/} No doubt the same situation applies to agriculture.

^{8/} Accident Facts, Kansas State Board of Health, record for 1930-39 incl., 1940 edition.

^{9/} Baker, J. N., "A Study of Death From Farm Accidents in Alabama," (1932-38), American Journal of Public Health, Vol. 30, No. 1, Jan. 1940.

^{10/} Includes 309 fatalities referred to in footnote 9, but 1,594 cases were not classified to suit the foregoing analyses.

^{11/} Beckner, Earl R., and Crozer, W. C., "Accident and Fire Survey in Region III," FSA, including States of Iowa, Illinois, Indiana, Missouri, and Ohio, 1940.

^{12/} See footnote 5 on p. 4.

Although agencies generally classify accident causes as attributed to the instrumentality of injury, in many instances this may be misleading as it explains the thing with which a person came in violent contact, rather than how the contact occurred. There is no clear differentiation here. For example, many reports indicate falls as responsible for a high percentage of agricultural accidents. But falls are not a primary cause; rather they are a type of accident. ^{13/} Injuries sustained by falls from ladders are often mentioned in the reports, but lack of qualifying information prevents a more accurate description of how they were sustained.

Table 2 shows a frequency distribution of the number and relative costs of 627 serious agricultural accidents, by principal causes:

Table 2.- Cause and cost of 627 farm-labor claims under workmen's compensation, policy years 1935 and 1936

| Cause of claim or agency of injury | Distribution | |
|---------------------------------------|------------------------|----------------------|
| | of claims by number | of claims by cost |
| | Percent | Percent |
| Falls (all kinds) | 26.5 | 29.3 |
| Animals | 15.0 | 16.8 |
| Farm machinery | 11.8 | 11.3 |
| Automobile | 9.6 | 10.3 |
| Struck by objects | 12.4 | 9.3 |
| Strains | 5.7 | 3.6 |
| Cuts and bruises | 5.6 | 3.5 |
| Diseases and infection | 2.7 | 2.9 |
| Others | 10.7 | 13.0 |
| Total | 100.0 | 100.0 |

Adapted from data compiled by members of the National Council on Workmen's Compensation from 37 States and the District of Columbia.

An analysis of the reasons given for 744 farm accidents in Kansas abstracted from assessors' returns in 1934 follows: Unavoidable, 31 percent; carelessness, 29 percent; defective farm equipment, 13 percent; vicious animals, 10 percent; sleepiness from exhaustion, drunkenness, and other causes, 17 percent. ^{14/}

^{13/} Kossoris, Max D., "A Statistical Approach to Accident Prevention," American Statistical Association, Journal, Sept. 1939, p. 524.

^{14/} Mohler, J. C., report of Kansas Board of Agriculture.

Severity of Farm Accidents

An example of the severity of accidents, based on approximately 17,000 accidents reported over most of the period from 1936 to April 1942 from newspaper clippings in Illinois, is indicated by the following analysis: Temporary disability, 85.1 percent; permanent injury or disability, 6.6 percent; and fatalities, 7.3 percent. 15/ Of 16,620 farm-accident claims filed in 1935 and 1936 with workmen's compensation insurance 16/ in 37 States and the District of Columbia, shown in exhibit I of the Appendix, 97.6 percent were nonserious and 2.4 percent were serious.

Severity of accidents by sex and for all children of both sexes under 15 years of age are analyzed in the Illinois report (based on clippings) for the years 1938, 1939, and 1940. As to 7,597 cases of a temporary nature, 80 percent were men; 8 percent, women; and 12 percent, children. Of 537 cases of permanent injury or disability, 89 percent were men; 3 percent, women; and 8 percent, children. Of 640 fatalities, 71 percent were men; 7 percent, women; and 22 percent, children. Of a total of 8,774 accidents, 80 percent were men; 7 percent, women; and 13 percent, children.

Cost of Accidents

Costs of agricultural accidents have both social and economic implications. Of immediate concern are the physical suffering of the injured and the distress of a family in case of death, neither of which is susceptible to cost accounting. Important work may be neglected by other members of the farm family, who also lose time while caring for the injured.

But more often the cost of accidents is thought of in terms of medical and hospital expenses, which can represent only a small portion of the loss. We must be concerned, particularly, with the cost to society when an accident partially or permanently reduces the productive capacity of a member of the agricultural group.

In addition, we are interested in the economic benefits, in relation to costs, to those farmers who have voluntarily protected themselves against the financial burden imposed by accidents.

Society pays for accidents principally in terms of unproductive future time, normally estimated in days, without serious attempt to compute the money value. In Massachusetts, for example, accidental farm deaths are each estimated at 5,000 days lost. 17/ Costs paid by the insured group are reflected in the general farm-labor premium rate,

15/ Seagraves, C. M., report of Illinois Agricultural Association.

16/ Report from National Council on Workmen's Compensation Insurance.

17/ Annual report of the Industrial Commission, Massachusetts.

which ranges in Delaware from \$1.25 per \$100 payroll to \$5.00 in North Dakota, as listed in exhibit III of the Appendix.^{18/} As this form of insurance is in most States voluntary for farmers and not yet widely used, the smallness of this insured group represents selective rather than general use by farmers. Minimum annual premium payments, also listed in exhibit III, are from \$13 in Delaware to \$100 in Idaho, Montana, and New Mexico and are virtually prohibitive for the small operator.

Private insurance companies and State funds pay for injuries according to severity. The range is from a few dollars for minor injuries to several thousand dollars for deaths. In a recent analysis of agricultural accidents on the Pacific Coast, the average indemnity paid for each by type was reported as follows:^{19/} Falls of persons, \$59; handling objects, \$30; involving farm animals, \$39; farm machinery, \$34; and hand tool injuries, \$24. The average amount per accident of 4,554 claims paid to Pennsylvania readers of a farm magazine, insured in a private casualty company, was \$16.^{20/} The period covered was from April 1, 1937 to April 1, 1940. Of 61 farm mutual claims paid in Iowa, covering the 4-month period, January 1, 1936 to May 1, 1936, the average was \$457.^{21/}

The average payment per claim filed under workmen's compensation by general farm laborers in Pennsylvania was \$157 for the 5-year period 1933-37. In New York such payments averaged \$142 during the 3-year period 1937-39 inclusive. In the latter State, the average payment for medical expenses was \$12.43; minor permanent disabilities, \$676.15 each; major permanent disabilities, \$3,677.03; and fatalities, \$3,693.76 each.

Workmen's compensation reports from 37 States and the District of Columbia for 1935 and 1936 showed that the average amount of payment for the more serious injuries, as listed in exhibit III, was \$2,050 per accident.

Loss of time as a result of accidents is usually reported by the number of days actually lost from work, or the period between the injury and death. A total of 361 temporary disabilities to Farm Security clients are presented in table 3, by number of days lost. Attention is called to the fact that the period intervals are of unequal length.

In Massachusetts, however, in addition to the number of days actually lost by injured persons, lost time resulting from permanent total disability and death is calculated at 6,000 days. This is an attempt to measure the future loss to society of a permanent total disability or death. The assumption is made that, except for the accident, a general average of 6,000 days would have been contributed by those persons totally disabled or killed.

^{18/} Refers to farm-labor code 0006 listed in the National Manual of the National Council on Compensation Insurance.

^{19/} Bulletin, "Pacific Coast Agricultural Accidents," by Fireman's Fund Indemnity Company, San Francisco, California.

^{20/} Data from Pennsylvania Farmer, Pittsburgh, Pennsylvania.

^{21/} Data from "Teamwork," published by Farmers Mutual Reinsurance Association, Grinnell, Iowa, May 1936.

Table 3.- Tabulation of 361 temporary injuries by specified periods of time lost

| Period | Temporary injuries |
|--------------------|--------------------|
| <u>Days</u> | <u>Number</u> |
| 3 or less | 23 |
| 4 to 7 | 51 |
| 8 to 14 | 70 |
| 15 to 21 | 52 |
| 22 to 28 | 9 |
| 29 to 42 | 63 |
| 43 to 56 | 14 |
| 57 to 84 | 36 |
| 85 to 182 | 30 |
| 183 and over | 3 |
| No report | 10 |
| Total | 361 |

Accident and Fire Survey, FSA, region III, 1939.

A tabulation of both current and future time lost as a result of farm accidents in Massachusetts is given in table 4.

Table 4.- Number of farm accidents and average time lost, by degree or severity, fiscal years ending June 30, 1934 and 1937

| Degree of disability | Fiscal year ending June 30 | Total accidents | Average days lost per accident |
|--|----------------------------|-----------------|--------------------------------|
| | <u>Year</u> | <u>Number</u> | <u>Number</u> |
| Temporary disability | 1934 | 425 | 35 |
| | 1937 | 421 | 34 |
| Permanent disability ^{1/} | 1934 | 3 | 1,275 |
| | 1937 | 6 | 1,881 |
| Death | 1934 | 3 | 6,000 |
| | 1937 | 4 | 6,000 |

^{1/} Includes permanent total and permanent partial disability. Each permanent total disability and death is calculated as 6,000 days' loss.

Annual reports of the Massachusetts Department of Industrial Accidents.

Farmers lose more time per accident of a temporary nature than do persons in other industries, according to the annual report of the Massachusetts Department of Industrial Accidents for the fiscal years ending June 30, 1934 and 1937, as shown in table 5.

Table 5.- Comparison of agriculture with all other principal industries as to average time lost per accident of a temporary nature, fiscal years ending June 30, 1934 and 1937

| Kind of employment | Temporary disability claims | Total days lost from accidents | Average days lost per accident |
|--------------------------------|-----------------------------|--------------------------------|--------------------------------|
| | Number | Number | Number |
| All agricultural classes | 846 | 29,153 | 34.5 |
| All other industries | 70,447 | 2,287,861 | 32.5 |

Annual reports of the Massachusetts Department of Industrial Accidents.

Accident Insurance

A farm and home accident-prevention program should recognize that, despite safeguards and warnings, injuries are inevitable and that insurance protection should be made as widely available as possible. Studies should be made of the insurance policies issued by private casualty companies and other carriers to ascertain whether they adequately protect farmers.

The farmer needs to know, when he examines an insurance policy, the definition of the word accident. He is likely to use the term broadly to include all injuries, whereas casualty companies defend themselves, in the event of suit for claim, on the basis of the legal definition which restricts the meaning to include only those injuries arising without plan or design, or from an unknown cause. It would be difficult, therefore, for an injured farmer, in all cases, to prove that his injury was accidental under circumstances that might point to contributory negligence. But State compensation acts provide immediate payment for injuries without application of the restricted legal definition of an accident.

There are usually two major reasons why farmers have not elected wide use of compensation insurance: (1) The nature of the farm business in that it is largely a family enterprise utilizing outside labor chiefly for seasonal work only; (2) the relatively high minimum premium rates.

Premiums under workmen's compensation are calculated by applying the rate per \$100 to the annual pay roll. Farm pay rolls are somewhat difficult to determine, but they might be estimated in advance and adjusted later as records become available. But many farmers employ outside help seasonally and, with a small pay roll, must pay the minimum premium. A

practical plan of liability protection for small farmers, with accident benefits for seasonal labor, would include (1) a lower minimum premium, and (2) a rate structure based on the pay roll and the period for which liability protection is needed.

As the provisions of workmen's compensation are not adapted to the requirements of most farmers, either the acts should be amended to provide the protection needed or alternative steps designed to meet the needs of farmers should be taken.

Serious consideration should be given to a plan that will at the same time give the farmer, the members of his family, and the occasional hired hands protection against accidents at a cost commensurate with earnings for the specified period.

A limited review of the accident policies issued by commercial companies indicated that, as a general rule, they do not provide either short-time or liability protection.

Under one type of accident policy available to farm workers, an annual premium of \$14.50 will provide a principal indemnity of \$500, with compensation at the rate of \$2 a day up to a limit of 1,000 days in case of injury. The premium may be paid at the rate of \$4 quarterly, and provides protection whether the workman is on or off the job. Doctor's bills for nondisabling injuries up to five treatments, at \$2 each, are provided in the general schedule. The upper limit of all individual claims is set at \$2,500. Hospitalization up to 50 days may be had for an extra premium of \$5 a year. The usual exceptions are noted, such as suicide, and injuries sustained while intoxicated or while committing a felony.

Although excluded from compulsory provisions of workmen's compensation in most States, agricultural employers for the most part, as shown in the report by States listed elsewhere, can elect coverage. For a report of experience with farm labor insured in workmen's compensation for the policy years 1935 and 1936 combined and of individual accident reports of a serious nature, compiled from members by the National Council on Compensation Insurance, see exhibits I and II respectively, in the Appendix to this report.

Indicating how social insurance, including workmen's compensation, may be made available to all kinds of people by simplification and lower expense, a private casualty official comments as follows:^{22/}

"... Social insurance, freed from competitive necessities and based on social needs and public concern for the welfare of all kinds and conditions of men, can achieve a great simplicity as regards 'premiums' and thereby eliminate some of the administrative costs, namely, those concerned with rate-making, apportionment of costs and so on ... many other countries have social insurance schemes considerably simpler. ... Some of this ... arises out of our relatively complicated political structure and the wide variations in local conditions throughout the country..."

^{22/} Perryman, F. S., the President's address, Proc. of the Casualty Actuarial Society, November 1940.

In several States - Arizona, California, Colorado, Idaho, Maryland, Michigan, Montana, Nevada, New York, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Utah, Washington, West Virginia, and Wyoming - State funds have been established to administer, generally, the Workmen's Compensation Act. The fund is exclusively administered by the State Governments in Nevada, North Dakota, Oregon, Washington, West Virginia, and Wyoming; and competitive (inasmuch as insurance, if required, may be written either by State funds or private insurance companies) in the remaining States. Policies of private carriers must conform to the specifications of the workmen's compensation laws in each such State. Usually self-insurance for farmers is permitted upon proof of solvency.^{23/}

In New York the State fund maintains a staff of expert safety engineers^{24/} to procure accident reports and help in accident prevention. In North Dakota a 1931 amendment would penalize an employer's rate up to 10 percent in case he fails to comply with reasonable safety regulations of the State. In Ohio, 1 percent of the premium is set aside as a separate fund for the investigation and prevention of industrial accidents and diseases.

State compensation acts as a rule do not specify the extent of the farm occupational hazard. But 12 States, by statement or inference, list all or a part of the farm business, except that in one or two instances the operation of power equipment is excepted as not extra hazardous, and is excluded from the provisions. Yet farming is listed by a number of accident insurance carriers^{25/} as the second most hazardous of four principal occupational classes.

ORGANIZED PROGRAMS FOR AGRICULTURAL ACCIDENT PREVENTION

Many organizations of a national, State, or regional character realize the problem of farm and home accidents and have various programs to obtain information that will furnish a guide to prevention.

National Safety Council

The National Safety Council^{26/} has taken the lead in gathering and analyzing facts on accidents of general interest, and in February 1942 sponsored the first National Safety Conference on home and farm accident problems. This organization began publishing annually, in 1920, a graphic bulletin, "Accident Facts," to serve two purposes: "First, to present vividly, by illustrations and diagrams, the salient characteristics of the past year's national accident experience; and second, to provide tables that serve as a year-round reference for detailed statistics."

^{23/} Problems of Workmen's Compensation in the United States and Canada, U. S. Dept. Labor Bull. No. 672, Appendix 2, 1940.

^{24/} Best's Insurance Reports for 1940, p. 746.

^{25/} Gordon, Harold R., Executive Secretary-Treasurer of Health and Accident Underwriters Conference, Chicago, Ill., in correspondence of Apr. 29, 1942.

^{26/} See footnote 5 on p. 4.

The Council will step up its safety campaign this year by budgeting \$5,000,000, a fifth of which will go to promote an educational program to reach all farm workers and their families as well as all industrial employees. 27/

To reach the goal of a well-organized and functioning farm-safety program, the following problems and the needs for definite action were outlined: 28/

- (1) Need for studies to determine more accurately the causes of home and farm accidents.
- (2) Need for research projects to find ways of coping with unusual problems.
- (3) Need for experimenting with new and interesting ideas.
- (4) Need for giving recognition to outstanding accomplishments.
- (5) Need for developing prompt and effective ways of disseminating information regarding successful methods of safety work.
- (6) Need for recording pictorially, and presenting in writing, successful ways of getting safety results.

Agricultural Extension Program

Plans for developing rural fire-fighting units in all communities were announced May 15, 1942 by the Secretary of Agriculture. In addition to the job of combating fire dangers, enhanced by the war, the program provides for making local surveys of farm and rural fire hazards and instruction in identifying and eliminating them. Directed toward saving property, the program also provides for human protection.

The movement will be under the Cooperative Extension Service of the Department of Agriculture and the State Agricultural Colleges, with other Federal, State, and local agencies cooperating.

Rural fire-fighting companies of about 10 farmers each on a community basis will be organized and trained. An inventory will be made of all fire-fighting equipment and facilities, including water supplies on each farm and in each community, and provision will be made for their maintenance and accessibility. 29/ This program was followed by a recent distribution to all extension workers of an illustrated booklet on farm fire prevention. 30/

27/ See footnote 1 on p. 1.

28/ Stillwell, John, President, National Farm Safety Council, address Feb. 17, 1942.

29/ Press Release by U. S. Dept. of Agriculture, May 15, 1942.

30/ "Suggestions for the Farm Fire Prevention Campaign," U. S. Extension Service, U. S. Dept. of Agriculture, 1942.

Agricultural Interdepartmental Safety Committee

In the interest of farm safety for National defense, the Agricultural Interdepartmental Safety Committee of the Federal Interdepartmental Safety Council, issued miscellaneous publication No. 481, "Watch Your Step," early in 1942. It was widely distributed to farmers. The various hazards to farmers were discussed and illustrated under the following topics: All around the farm, in and about the home, special seasonal hazards, some pointers for electrical safety, farm-fire prevention, motor vehicle accidents, and general rules of the road. "In brief," say the authors, "prevention and preparedness are the dual controls. Prevent the accident, if you can; know how to cope with it, if you must."

Farm Security Administration

The Farm Security Administration is interested in accident and fire prevention as a part of its general program for its clients throughout the Nation. Recently, as part of this effort, articles on the nature and prevention of current farm and home accidents have been widely distributed through the press for farm readers, and special pamphlets have been sent to borrowers. 31/ Accidents affect the FSA program in two ways: (1) Injuries to borrowers may affect their ability to repay loans; and, (2) liability insurance against injuries that may occur to construction crews employed by the FSA involves an immediate cost which must be added to the loan. As most farm-construction units are low in cost, the minimum premium which applies is out of proportion to the liability assumed.

An accident and fire survey was conducted in 1939 in region III, FSA, including the States of Iowa, Illinois, Indiana, Missouri, and Ohio, and a report was presented in 1940. 32/ The study was based on 12,500 households, representing one-fourth of all clients in the region.

Two objectives were cited: (1) To secure authentic information about farm accidents and their causes; (2) to provide a sound foundation for prescribing and applying effective remedial measures.

Summarizing the results of the study, the authors note:

- (1) Three hundred eighty-eight persons received injuries, resulting in 12 permanent disabilities and 15 deaths.
- (2) Total medical expense was \$15,000, averaging more than \$44 per case.
- (3) Time lost from temporary disability was 12,295 days, an average of 32 days per person injured. 33/

31/ Articles include: "Beware of Sunstroke, Heatstroke in August"; "Farm Fires Kill 3,500 People Annually and Destroy \$100,000,000 Worth of Property"; "On the Agricultural Front"; Release No. 4, "Fire Loss," 1942; and pamphlet, "How to Stop Home Accidents," issued by the U. S. Dept. of Commerce, reprinted by FSA for borrowers.

32/ See footnote 11 on p. 6.

33/ Estimate regarded low by authors, as all accidents probably not reported.

- (4) Distribution: 66 percent occurred while on farm operations; 21 percent were home accidents; and 13 percent were nonfarm accidents.
- (5) Accidents occurred most frequently when: (a) In case of farming operations, objects were being handled; (b) in case of farm home, while walking, running, or playing; and (c) nonfarm, while driving or riding in a vehicle.
- (6) Most of the injuries occurred in the age groups most active and responsible in farming operations.

Offers Instructor Training Course

The American Red Cross now offers an instructor training course in home and farm accident prevention. Two chief purposes are announced, as follows: 34/ "First, to present Red Cross Home and Farm Accident Prevention as such in its entirety; and, second, to qualify accident prevention instructors so that they can teach the adult courses in Home and Farm Accident Prevention and otherwise promote the program."

Further statements as to the purpose are: "It is expected that the student will acquire a practical knowledge concerning the conditions and situations which lead to accidents, an awareness of accident hazards and the corresponding corrective measures - especially the ones that touch upon the everyday life and common home activities - and that out of it all his own habits and attitudes in this respect may be developed and strengthened."

The course provides instruction in such topics as follows:

- (1) Why do accidents happen?
- (2) They can be controlled.
- (3) How to obtain figures and information.
- (4) Effects of accidents.
- (5) Where people have falls; their common causes.
- (6) Causes of unsafe conditions; who is responsible.
- (7) Corrections for physical causes; correction of habits.
- (8) How and where the accidents happen; what injuries resulted; how they could have been prevented.
- (9) The importance of first aid instruction.

34/ Home and Farm Accident Prevention Instructor Training Course Outline, ARC 1057, Dec. 1941.

- (10) How food poisoning may be caused; common precautions to take.

In addition the Red Cross distributes a great number of check lists of common home and farm hazards. Examples of the questions follow: Are matches kept from little children? Are firearms unloaded? Are dangerous animals securely penned?

The following observations and recommendations were made:

- (1) Most of these accidents could have been prevented if reasonable care and common sense had been used.
- (2) There is great need of adequate first aid treatment in farm accidents.

Farm Equipment Manufacturers

Considerable work has been undertaken by manufacturers of farm equipment to safeguard the revolving parts and power take-off, to minimize the chance of accidents. One of the principal concerns was the danger of clothing catching in a machine and dragging the victim into it. Consideration of these hazards has resulted in standardizing or redesigning the machine parts so that maximum protection could be afforded.

ARTICLES OF MISCELLANEOUS NATURE ON AGRICULTURAL ACCIDENTS

Articles calling attention to the danger of agricultural accidents and urging preventive measures have become more frequent since the war began. Brief digests of such messages appearing in farm magazines and in some of the more technical journals are here given.

Kind of Farm Hazards

Observations on the nature of farm hazards in the New York area are abstracted from an article as follows: 35/

- "(1) Farmers are associated with a surprisingly large number of tools having cutting edges, high speed shafting and belting, and many of these are poorly protected or guarded to prevent contact with one's person. Complete protection is virtually impossible.
- (2) Farmers are often far removed from any source of medical assistance and considerable time is required to reach a hospital when necessary. Doctors are rapidly becoming less common in small rural communities, establishing themselves in the larger centers. Less than a third of the victims tabulated

35/ Cook, Irving C. H., "On Farm Accidents," Rural New Yorker, May 17, 1941, p. 326.

in a study made in central New York State received help during the first hour following their accidents, and hardly two-thirds were cared for within six hours.^{36/}

- (3) Half of the 310 accidents to farmers occurred in the barn and barnyard - a danger spot.
- (4) Farmers sustain accidents most often to the upper part of the body.
- (5) Farmers suffer from infection of wounds and need a standard antiseptic on hand at all times.
- (6) Farmers are often compelled to employ inexperienced boys and men who are careless and inefficient by nature, some with an 'unquenchable thirst.'

Continuing, the writer listed four causes for concern:

- "(1) Pain and suffering resulting from accidents.
- (2) Care and nursing required.
- (3) Time lost from work.
- (4) Financing doctor and hospital bills."

Accident Statistics Not Exhaustive

A principal function of accident statistics is to furnish an adequate representation of the cause so that interested persons and agencies will know how to organize an accident-prevention program. Many reporting agencies describe only a part of the cause, usually the thing, or the reactionary event, directly associated with the injury. Contributory factors which set the stage for the accident are usually omitted. It is recognized that these factors are difficult both to tabulate and to evaluate.

That our prevention technique is obviously slowed down by this common fault in the accumulation of primary accident data is pointed out as follows:^{37/}

"Under the codes in use in nearly all States, the so-called 'accident cause statistics' are usually injury cause statistics, and the statistical codes used indicate the object or accident type primarily responsible for the injury - but not the cause of the accident.... But is 'falls' a cause of accident? Is it not rather a type of accident? As for the cause of the fall, was it grease on the floor, a defective ladder, or an object on the floor, over which the worker stumbled? On these basic problems the present 'cause codes' offer no clue."

^{36/} Dr. John H. Powers, practicing physician in Cooperstown, N. Y., directed the study.

^{37/} See footnote 13 on p. 7.

"The underlying philosophy of this method of analysis^{38/} is that industrial accidents are due to unsafe conditions and unsafe practices, which, if eliminated, would prevent a repetition of the same or similar type of accident. The effort, therefore, is to enable the statistician to identify and select the unsafe factors and then present the data to safety engineers for guidance in accident prevention.

"Under this method of analysis, an accident is considered from six angles:

- (1) The defective object, or agency, with which the injury is most closely related, such as a saw, a tool, etc.
- (2) The defective agency part most immediately involved, such as the gears of a lathe, the door of an elevator, etc.
- (3) The unsafe mechanical or physical condition of the selected agency.
- (4) The accident type (that is, falls, most immediately associated with the selected agency).
- (5) The unsafe act resulting in the selected accident type.
- (6) The unsafe personal factor which led to the unsafe act."

Nine questions were regarded as basic to analysis and were listed as follows:

- "(1) What was employee doing when the accident occurred?
- (2) What machine, tool, substance, or object was most closely connected with the accident?
- (3) If a machine or vehicle, what part of it?
- (4) How did the accident happen?
- (5) In what way was the machine, tool, or object defective?
- (6) How can you prevent this type of accident?
- (7) Were mechanical guards, or other necessary safeguards (such as goggles) provided?
- (8) Was injured using them?
- (9) How could the injured have prevented the accident?"

^{38/} Refers to the Heinrich cause code.

Will War Food Program Increase Farm Accidents?

Some pertinent points on the problem of accidents that may be associated with the war activities in food production are given in the following digest of a recent article:^{39/}

"The farmers of America ... are being asked, as a patriotic national service, to increase ... our national production of dairy and poultry products, meats, and a few other concentrated foods.

"There are many evidences of quick response ... to this food-emergency plea. But the result must be achieved in the face of unusual farming difficulties. One is the most severe shortage in farm labor since World War I, due to the demand for the younger farm workers by the U. S. Army and the defense industries. Another is shortage in new farm machinery ... because of curtailed steel allotments to the farm equipment manufacturers, and possible shortages also in the extra repair parts absolutely essential to keep both the new and the old farm machines going efficiently and safely.

"... Mechanization has helped to make the job of the American farmer one of the most hazardous of occupations. ... Only a few States officially know anything about the carnage of farm accidents or have any official plans for lessening this 'worse than war' human waste. And most States have so written their workmen's compensation laws that all employers of farm labor either are exempted specifically, or may elect to exempt themselves from these laws, which automatically supply financial protection to the workers in other hazardous industries.

"There seems to be evidence that the shortage in farm labor and in farm machines already is resulting in new kinds of accidents. When the farmer is urged to increase the production of his farm - but can secure neither the extra workers needed nor the desired new labor-saving machines - what can the farmer do about it?

"His only remedy is to spread out his own labor and all other possible shreds of labor still procurable, to spread the work of his own farm machines, and to supplement them with other machines exchanged with neighbors or hired for 'custom work.'

"Such an emergency situation naturally will bring new farm hazards. Young boys and girls, and old men, will be brought more prominently into the farm-work picture. So will the farm wife, if she so agrees. There will be any possible other pick-ups of 'hired men,' which eventually may include - as suggested in a recent public address by Mrs. Franklin D. Roosevelt - a new volunteer army of city farmerettes.

"With a few exceptions, farmers' organizations seem not very active yet in helping to solve the challenging national problem of farm accidents. There are many possible reasons why.

^{39/} Howard, Randall R., "Will War Food Program Increase Farm Accidents?" Journal of American Insurance, December 1941.

"First, many individual farmers doubtless do not realize the hazards of their farm work. Their safety consciousness naturally is not appealed to as it would be continuously in a city by such warnings as: 'Watch your step,' 'safety first,' 'do not remove guards,' 'wear your goggles.'

"Too, most farmers are both proprietors and workers, and a large percentage of all farm accidents are to the farmers themselves. Excepting in a few large-farm areas, the number of employees on most farms is well under the minimums set by most workmen's compensation laws. The extra labor on most farms is for brief periods; and much extra labor is exchanged with farm neighbors.

"Many farmers doubtless carry employer's liability insurance for employee accident protection, but the percentage so protected is assumed to be very small. As compared with twenty years ago, many more farmers are believed to carry personal health and accident insurance, but it may be assumed that farmers as a class do not have very broad disability protection, considering their accident hazards."

Farm-Home Accident Problems

Farm homes are increasingly recognized as hazardous places, largely because of faulty design or poor repair and inadequate lighting facilities. Burns constitute a high proportion of accidents, attributed to open fire places without screens, frequent handling of scalding hot water, and inadequate flue linings.

Although some differences are found in the kinds of accidents as between urban and farm homes, much can be learned by farm people from a report on general home accidents, abstracted as follows:^{40/}

"In 1940 the death rates for all ages in the Metropolitan industrial policy holder experience per 100,000 for different groups of accidents were:

| <u>Type of accident</u> | <u>Rate per 100,000</u> |
|-------------------------|-------------------------|
| Motor vehicle accidents | 18.1 |
| Home accidents | 11.7 |
| Occupational accidents | 6.2 |
| Other | 11.9 |

Some conclusions reached were:

- (1) In home accidents there is an extensive waste of human values, which could largely be prevented by construction regulations, by legally enforceable standards as to home equipment, and by home-accident education as to equipment and living methods, especially the latter.

^{40/} Armstrong, D. B. and Cole, W. G. "Study of Home Accidents: Their Public Health Significance," American Journal of Public Health, Vol. 31, No. 11, Nov. 1941.

- (2) Public health and visiting nurses, in addition to the care they give to the injured, have demonstrated in the course of this inquiry that they can perform a very useful service by accumulating data for analysis. The more general adoption of specific procedures, with appropriate record forms, and home-hazard check lists will promote this end. ...
- (3) For the local health department the home-accident field offers a remarkable opportunity. Its developing work here will no doubt be carried out in close cooperation with other agencies, such as fire departments, safety councils, schools, and insurance companies. ... Accidents in the home which lead to incapacity or to fatalities among useful or promising members of society - adult or child, male or female - are in the same category of wastefulness in our national economy, as are similar losses in essential industries or in the Nation's armed forces.

Continuing, the authors give an analysis of fatal accidents in Minnesota homes, data by the Minnesota Department of Health:

- (1) During the first 6 months of 1940, accidents were responsible for the death of 849 Minnesota residents - 40 percent of these were home accidents.
- (2) Principal factors thought to be responsible were inherent carelessness, negligence of adults toward children, weather and the forces of nature, and incapacity through old age and disease.
- (3) About 54 percent resulted from falls, but 92 percent of those dying were in the older age group and not actively employed in any gainful occupation.
- (4) Burns were responsible for nearly one-fourth of the total, affecting mainly children and young people. These accidents were very distinctly from controllable causes, such as scalding and lighting fires with kerosene.

War Introduces New Hazards

The following comments were made on the hazards to be faced in producing to meet agricultural war needs:^{41/}

"This year older farm machinery will be in use. Some of the machines are patched up. Men who thought they had retired will be operating this old patched up machinery. More women, more young people, more 'green' hands will be on the job this year, helping agriculture top its war production goals.

^{41/} Article in the Prairie Farmer, Chicago, Ill., March 7, 1942.

"The shortage of doctors and nurses will mean that few of them can leave their central headquarters to make calls in the country. All these things coming in a year when farmers must exert every ounce of energy to provide, emphasizes the importance of preventing accidents."

Farm Accidents High

Calling attention to the great number of farm accidents as compared with those occurring in other industries, observations for farmers to consider were abstracted from an article as follows:^{42/}

- (1) Farmers should realize that in industry a great deal of organized thought and effort are used to prevent accidents, because every time a worker is injured or killed his employer or insurance company must pay the bill. Therefore they (employers and insurance companies) use every means at their command to safeguard machinery, and employers will even go so far as to discharge workers who are habitually careless.
- (2) A farmer has only himself and his family to worry about.
- (3) Less thought is given to safety on the farms than in any other occupation.
- (4) The solution is mostly a matter of getting the education to the farmers, of their becoming accident-conscious, of seeking out little things here and there which may cause accidents, and correcting them.
- (5) Home-hazard check lists are available at the Minnesota Safety Council, St. Paul, Minn.

SAFETY EDUCATION IN ACCIDENT PREVENTION

Although much has been said about the need for a generalized farm-safety educational approach to accident prevention, little attempt has been made to classify organized safety educational campaigns already undertaken by types and degrees of effectiveness. Much more to the point are the industrial compensation rating plans which allow up to 5 percent credit for specified safety and welfare work.^{43/} This is applied safety education, the need for which is further emphasized by the so-called 4 to 1 theory, which maintains that for every dollar the insurance carrier does not have to pay, because of an accident prevented, the employer saves \$4 in production costs in addition to his credits for safety practices.

Education as to the kind of clothing adaptable to handling various farm jobs is needed. Recently, a bulletin which included pointers on safe apparel for women who may be called upon to perform various tasks in

^{42/} "Farm Accidents High," The Farmer, St. Paul, Minn., Oct. 18, 1941, p. 6.

^{43/} Perkins, Sanford B., Proc. of the Casualty Actuarial Society, No. 30, May 25, 1928.

connection with farming, was issued by the United States Department of Labor.^{44/}

A safety message to American school children on planning for safety is quoted: "... In all my travels ... in the interest of science and discovery, I have never taken an unnecessary risk. ... By careful planning and by taking no unnecessary chances my men and I have lived to enjoy the hazards and thrills of adventure and discovery. We found adventure only by planning for safety as far as possible."^{45/}

Research in Safety Education

Before a safety program can be generally fitted into our educational system, research must be made. The factors contributing to accidents must be resolved into their component parts and presented in their logical order. Certain considerations are extracted as follows:^{46/}

"In order to investigate the factors which we wish to introduce into an educational program, we must be able to fit the accident into sets of known experience and training. It becomes essential, therefore, to pretest our accidents and not to rely for explanation upon an examination which travels backward in time from the incident. Our information must have been gathered before the accident occurs. We need first grade and pre-school information about a 6th grade accident. We need 12-year-old information about a 22-year-old accident.

"Another type of research is directly related to the adjustment of school procedures. The administration of the school system, the integration of subject matter, the establishment of clinics and bureaus of evaluation, construction of new materials, and the inauguration of teacher education programs and the supervision of instruction will serve to characterize this field of study."

Urges Specific Measures

"A safety service program should embody policies, standards, techniques, regulations, instructions to staff, and all details of operations," according to a health and safety official, who continues:^{47/}

"A safety program casually placed in the hands of individuals may be inspiring to one or several, but it will never be more than incidentally effective."

^{44/} "Safety Clothing for Women in Industry," Special Bulletin No. 3, U. S. Dept. of Labor, Women's Bureau, 1941.

^{45/} Mowbray, A. H., quoting Admiral Richard E. Byrd, Review of 18th Year-book, American Association of School Administration, in the Proc. of the Casualty Actuarial Society, Nov. 1940.

^{46/} Dearborn, Ned H., Dean, Division of General Education, N. Y. University in panel discussion, "Research in Safety Education," in Transactions, 28th National Safety Congress, Atlantic City, N. J., Oct. 16-20, 1939.

^{47/} Ireland, Allen G., M. D., Director of Health, Safety, and Physical Ed., State Dept. of Public Instruction, Trenton, N. J., "Administration of Safety Education," Chief Education Section, 28th National Safety Congress, Atlantic City, N. J., Oct. 16-20, 1939.

REPORT BY STATES

Analyses of available agricultural-accident data, together with notes on the application of farm labor to the provisions of workmen's compensation laws, follow by States:^{48/}

Alabama

Analyses of 1,859 fatal agricultural accidents in Alabama, occurring in the period 1933 to 1938 inclusive, indicate that 86 percent occurred to members of the farm group not normally employed in field work and 14 percent to regular workers.^{49/} By sex, the distribution of 1,594 fatalities to the nonworkers, resulting principally from home accidents, was 757 males and 837 females. Records of 79 fatalities to field workers, including data for 1932, showed that 291 were males and 18 were females.

Death from burns was most common in the list of 1,594 accidents. These occurred chiefly in the home and numbered 536; they were followed in order by falls, 409; firearms, 154; suffocations, 138; poisons, 122; drownings, 41; cuts and scratches, 18; animals, 10; and all others, 166. Deaths from accidents to the farm-worker group by causes were: Handling animals, 58; falling objects, 53; lightning, 47; sunstroke, 29; vehicles, 26; burns, 19; falls, 16; machinery, 16; poisons, 9; striking objects, 8; hand tools, 8; handling objects, 6; and all other causes, 14.

As to seasonal occurrence, 46 percent of the farm-accident fatalities came in the 4 summer months, whereas 40 percent of the fatal home accidents occurred during the 4 winter months. The very young and very old were most susceptible to fatal accidents.

Conclusions reached from the study were:

- (1) Accidents are an important cause of deaths on the farms and in the farm homes.
- (2) A revision of our present accident questionnaire form seems definitely indicated.
- (3) More detailed information as to the causes of accidents must be obtained.
- (4) Farm accidents, like all other accidents, should be viewed as preventable causes of death and every effort should be made to reduce them to a minimum.

Farmers may elect coverage in workmen's compensation, the statutes being applicable, if 8 or more employees are hired. The act, however, specifically excludes agricultural occupations from its compulsory provisions.

^{48/} The status of farm labor under workmen's compensation is given in table 20 for those States for which no farm accident data were available. For additional State reference see exhibit I, insurance experience; exhibit II, report on more serious cases; and exhibit III, premium rates.

^{49/} See footnote 9 on p. 6.

California

Attention was directed to the increasing number of accidental deaths among farmers and the lack of accurate data on the nature and extent of injuries in California, in an article circulated several years ago.^{50/} At present, a quarterly publication is issued, reporting general safety topics with some accident statistics for the principal industries of California, including agriculture.^{51/} Almost without exception, agriculture experienced the greatest number of annual disabling injuries.

With reference to the application of workmen's compensation to farm workers, the following report is given:^{52/}

"All farmers (those meeting the specifications) in California must insure (under Workmen's Compensation) unless they reject and to date 5,759 have rejected since the passage of the Act, July 1927." Insurance under workmen's compensation is compulsory if the farmer's pay roll exceeds \$500 for the preceding calendar year. Independent operators without employees and, consequently, no pay roll, may elect coverage. However, as accidents of this group are not recorded, it appears that they usually do not insure, which may be deduced from the following statement.^{53/} "In California, every employer of labor, without any exception, is required to report every industrial injury. Therefore, the tabulations include all industrial injuries regardless of whether we have jurisdiction as to compensation or not and regardless of whether the employer has rejected or not. Injuries to independent farm operators are not included in the tabulation."

Following is a 6-year report of the number and severity of agricultural accidents in California:

Table 6.- Number of injuries in agricultural accidents in California by years and by extent of injury, 1935-40

| Year | Extent of injuries | | | |
|-------|--------------------|---------------------|---------------------|-----------------|
| | Fatal Number | Permanent Number | Temporary Number | Total Number |
| 1935 | 58 | 52 | 9,450 | 9,560 |
| 1936 | 64 | 51 | 9,928 | 10,043 |
| 1937 | 68 | 59 | 11,083 | 11,210 |
| 1938 | 58 | 61 | 10,214 | 10,333 |
| 1939 | 46 | 85 | 10,092 | 10,223 |
| 1940 | 65 | 72 | 9,540 | 9,677 |
| Total | 359 | 380 | 60,307 | 61,046 |

Data from Industrial Accident Prevention Bureau, Industrial Accident Commission, San Francisco, California, May 6, 1942.

^{50/} Legge, R. T., M. D. "Occupational Hazards in the Agricultural Industries," American Journal of Public Health, Vol. 35, No. 4, April 1935.

^{51/} California Safety News, published by Industrial Accident Commission, San Francisco and Los Angeles, California.

^{52/} Shanks, Graham L. "The Causes and Prevention of Accidents to the Operators of Farm Machinery in the U. S. and Canada," Master's Thesis, Iowa State College, 1931.

^{53/} Correspondence with Industrial Accident Commission, San Francisco, Calif., Mar. 19, 1936.

Delaware

Farmers are excluded from the compulsory provisions of workmen's compensation but may elect insurance and receive the specified benefits. An analysis of accidents and casualty insurance experience with Delaware readers of a Pennsylvania farm magazine is given in table 7.

Table 7.- Amount and number of injury claims filed by Delaware readers of a Pennsylvania farm magazine, by agency of injury, April 1, 1937 to April 1, 1940

| Amount of claims paid | Agency associated with injury | | | | | |
|-----------------------|-------------------------------|----------|-------------|--------------|---------------|--------|
| | Animals | Machines | Small tools | Auto-mobiles | Miscellaneous | Total |
| Dollars | Number | Number | Number | Number | Number | Number |
| Under 10 | 1 | 1 | 6 | 0 | 3 | 11 |
| 10-19 | 1 | 2 | 0 | 0 | 0 | 3 |
| 60-69 | 0 | 0 | 0 | 1 | 0 | 1 |
| Total | 2 | 3 | 6 | 1 | 3 | 15 |

Data adapted from list of claims paid insured readers of the Pennsylvania Farmer.

Florida

No statistics on farm accidents are available for Florida. A farm-safety bulletin has been published and distributed, which portrays graphically how to identify hazards and gives suggestions as to how injuries may be avoided.^{54/} Farmers, except those with sawmills that employ more than 10 persons, are excluded from compulsory provisions but may elect workmen's compensation. The law was amended June 14, 1941, and deletes the exemption if 3 or more are employed in horticultural labor, logging, dairy products, and processing of farm products.^{55/}

Idaho

Table 8 gives the experience of farmers, classified by type of farming, who were insured in workmen's compensation.

Farm employers are excluded from the compulsory provisions of workmen's compensation except in such case as an employer elects in writing to be included. This section was amended March 7, 1939, to provide that an employer may revoke such election and in the event of cancellation of the insurance policy under which the employer is covered, the revocation of election shall be automatic.

^{54/} Mayo, Nathan, Commissioner of Agriculture, bulletin, "Safety on the Farm," Tallahassee, Florida.

^{55/} Digest of State and Federal Labor Legislation, Bul. No. 48, U. S. Dept. of Labor, July 1940 to July 1941.

Table 8.- Premium costs and losses paid to specified classes of farm labor under workmen's compensation in Idaho, 1929

| Class | :Rate per : : \$100 : : payroll : : Dollars : | : Payroll : : Dollars : | : Premium : : Dollars : | : Losses : : Dollars : | :Ratio of : loss to : premium : Percent |
|------------------------|--|----------------------------|----------------------------|---------------------------|--|
| General farm labor | : 1.90 : | : 538,104 : | : 10,203 : | : 2,332 : | : 22.85 |
| Operators of machinery | : 3.00 : | : 120,336 : | : 3,608 : | : 2,367 : | : 65.61 |
| Stock raisers | : 1.90 : | : 187,635 : | : 3,565 : | : 149 : | : 4.17 |
| Fruit growers | : .80 : | : 247,856 : | : 1,903 : | : 2,011 : | : 105.69 |
| Total | : 1.76 : | : 1,093,931 : | : 19,279 : | : 6,859 : | : 35.58 |

Shanks' Thesis, Iowa State College, 1931.

Illinois

Analyses of statistics on more than 6,000 accidents (mostly farm accidents), collected from newspaper clippings in Illinois in 1938 and 1939, showed that nearly one-third resulted from injuries sustained from machinery, with injuries from handling animals second, and falls, third. ^{56/} Eight percent resulted in death, 6 percent in major or minor permanent disability, and 86 percent in temporary disability.

Farmers are excluded from the compulsory provisions of workmen's compensation although they may elect to be covered.

The distinction made between a permanent injury and a temporary disability is illustrated as follows: If a worker loses four fingers of his hand, the injury is classified as a temporary disability, as he can continue his farm operations; but if he loses the thumb also, he is deemed permanently injured. The loss of a hand or a foot or both eyes constitutes a permanent injury, whereas the loss of a finger, one eye, or anything permanent in nature but less than disabling, is a temporary disability.

The Illinois Agricultural Association has offered liability protection to Illinois farmers since 1929. For one worker the rate was 50 cents a month, plus \$3 a year, but minus 5 percent if the employer sends in his reports regularly. Protection is up to \$5,000. Approximately 4,000 of these employer's liability policies were in force as of December 1, 1940.

Beginning in 1938, accident records were also classified as to whether they occurred to men, women, or children under 15 years of age. Following is a summary of the accidents as compiled from newspaper clippings.

^{56/} See footnote 15 on p. 8.

Table 9.- Illinois farm-accident chart for period 1936-42 inclusive 1/

| | 1936 | 1937 | 1938 | 1939 | 1940 <u>2/</u> | 1941 | 1942 <u>3/</u> |
|------------------------|----------|----------|--------|--------|----------------|--------|----------------|
| | Number | Number | Number | Number | Number | Number | Number |
| Total accidents | 4/ 1,868 | 4/ 2,161 | 2,731 | 3,536 | 2,507 | 3,598 | 1,022 |
| TEMPORARY INJURIES | | | | | | | |
| Men | | | 1,840 | 2,475 | 1,770 | 2,464 | 694 |
| Women | | | 171 | 234 | 166 | 259 | 99 |
| Children | | | 282 | 397 | 262 | 395 | 107 |
| Total | 1,556 | 1,836 | 2,293 | 3,106 | 2,198 | 3,118 | 900 |
| PERMANENT INJURIES | | | | | | | |
| Men | | | 147 | 144 | 109 | 167 | 41 |
| Women | | | 4 | 5 | 6 | 5 | 1 |
| Children | | | 11 | 18 | 8 | 28 | 2 |
| Total | 140 | 141 | 162 | 167 | 123 | 200 | 44 |
| PERMANENT DISABILITIES | | | | | | | |
| Men | | | 33 | 30 | 13 | 32 | 5 |
| Women | | | | | | | |
| Children | | | | 5 | 4 | 2 | |
| Total | 16 | 20 | 33 | 35 | 17 | 34 | 5 |
| DEATHS | | | | | | | |
| Men | | | 167 | 165 | 125 | 181 | 47 |
| Women | | | 18 | 21 | 5 | 17 | 8 |
| Children | | | 58 | 42 | 39 | 48 | 18 |
| Total | 156 | 164 | 243 | 228 | 169 | 246 | 73 |

1/ Data taken from Farm Accident Charts, Illinois Agricultural Associations, M. Seagraves, Director, Department of Safety.
 2/ January, February, March, and April not available.
 3/ Data for January, February, March, and April only.
 4/ Data not available by type of victim.

Iowa

Farmers having one or more employees may elect coverage under workmen's compensation, in Iowa. But the act excludes agricultural employment. Data on farm accidents under an occupational group classification collected in 1935 and 1936 indicate that less than 5 percent of all accidental deaths occurred to people in agriculture. 57/ Of the occupational group, a total of 7 percent of all accidental deaths within the age limit 25-64 years occurred to farmers. By comparison with other occupational deaths, farmers represented 42 percent of the total; 100 percent of the age group, 5-14 years; 40 percent of the age group 15-24 years; and 49 percent of the age group 65 years and over. Home accidents evidently were not classified by occupation of the family heads.

According to another source of information, falls and automobiles accounted for 58 percent of all accidental deaths in the State during the period 1936-39 inclusive; fires and explosions, 5.9 percent; wells, water and drowning, 3.4 percent; machinery, animals, and other farm hazards, 4.8 percent; and miscellaneous, 27.9 percent. 58/

An Iowa State College thesis reporting an investigation of accidents to operators of machinery and the application of this labor group to workmen's compensation laws, reported the following: 59/

- (1) Farm labor is afforded far less protection than industrial labor.
- (2) Farmers are injured three times as often proportionately as are their employees.
- (3) The proportion of employers injured is exceedingly high in agriculture.
- (4) Only a few States have attacked the problem of farm-safety regulations and these have differences of opinion as to the type of safety devices required.
- (5) There is evident need for a rational safety code which will provide maximum safety with minimum inconvenience and expense.

Kansas

Farmers are excluded under the compulsory provisions of the Workmen's Compensation Act in Kansas but they may elect to be insured by filing notice with the Commission.

Collection of farm-accident facts was begun in Kansas in the spring of 1935 when the State Board of Agriculture furnished schedules to the county tax assessors to gather data on the number, circumstances, and results of farm accidents.

57/ Data collected by Iowa Division of Vital Statistics.

58/ Article in Wallace's Farmer, Jan. 25, 1941.

59/ See footnote 52 on p. 26.

These data collected in 1935, were for 1934 and indicated the following significant facts: 60/

- (1) One accident occurred for each 50 farms in Kansas.
- (2) An average of 4.7 persons were injured for each 1,000 inhabitants.
- (3) An average of more than 40 days lost for each accident.
- (4) In 1934, a total of 112 were killed and 127 permanently disabled.
- (5) More accidents occurred in the central and eastern parts of the State than in the western part.
- (6) Assessors' returns report 33 percent of the accidents occurred in the use of machinery; 23 percent were ascribed to horses; 6 percent to automobiles and trucks; 2 percent to cattle; 2 percent to falls; and in 34 percent of the cases the cause was not specified.
- (7) Carelessness was given as the cause of 29 percent of all accidents.
- (8) About 85 percent of the farm-accident victims were males in their most useful years.

Three discoveries were listed as a result of the first survey:

- (1) Farm accidents in Kansas are more numerous than those occurring in any of the other industries in the State.
- (2) Fundamental causes of farm accidents are the same as those in other industries - unsafe equipment and unsafe workers.
- (3) A year-round safety program must be a regular job for the Kansas State Department of Agriculture.

Beginning in 1932, the Kansas State Board of Health has issued an annual report of accidental deaths occurring in the State. A rather complete analysis of farm accidents and safety suggestions is given. Organization of the annual report is based on data classified as follows: The State record, occupational accidents, public accidents, home accidents, and motor vehicle accidents.

A farm-safety primer is issued by the Farm Accident Committee, State Safety Council, which includes the county, and State safety contest rules.

60/ Mohler, J. C. in article, "The Most Hazardous Occupation in Kansas," National Safety News, Jan. 1936.

Kentucky

Agricultural workers, except operators of threshing machines, are excluded from the provisions of workmen's compensation in Kentucky. But the State legislature passed a bill February 21, 1942, proposing, by a constitutional amendment, subject to ratification, the enactment of a compulsory law. Farm workers, both employers and employees, may now jointly elect coverage by voluntary application to the Board. The minimum of three employees may be waived as fewer may elect and be accepted for insurance.

No statistics on farm accidents were obtained.

Louisiana

Although farmers generally are excluded from the compulsory provisions of workmen's compensation in Louisiana the act applies to employers of those engaged in the operation, construction, repair, removal, maintenance, and demolition of harvesting machinery, threshing machines, cotton gins, cotton compresses, sugar houses, sugar and other refineries.

The following article states: 61/ "From ... expressions of the Appellate Courts of Louisiana, it may be concluded that farm laborers are not as a general rule protected by the Workmen's Compensation Law because farming is not declared a hazardous occupation by the statute. In those instances, however, where the farm laborer installs, operates, or repairs tractors, engines, and other forms of machinery, or performs services connected with these contrivances the statute is applicable to him. Then, too, if the farm laborer does work which is incidental to the operation of any of the businesses designated by the act as hazardous, such as hauling sugar cane from his employer's field to the same employer's ... refinery, his employment is within the scope of the Workmen's Compensation Law and the laborer is protected against injury occurring within the scope of that employment"

No statistics on farm accidents were discovered.

Maryland

Farmers are excluded from the compulsory provisions of workmen's compensation but may elect to become covered, in Maryland.

Unpublished data on the experience of a casualty agency with farm risks in Maryland for 1934 listed 334 cases classified by causes as follows: Playing, 11; burns and scaldings, 9; tree cutting, 7; falls, 83; tools, 49; autos and trucks, 44; machinery, 33; livestock, 28; and miscellaneous or unclassified, 70.

61/ Fernandez, Claude E., Conclusions From Court Decisions Workmen's Compensation Laws, Louisiana. Louisiana Rural Economist, Jan. 1941.

The Maryland Agricultural Extension Service has been working on the question of farm accidents for a number of years. A 6-month survey of accidents on Maryland farms, based on data collected by county agents, was made in 1936.

Excerpts from a farm-safety address, "Watch Your Step," delivered May 16, 1936, before the Farm Bureau, follow: 62/

"Sometimes I think that in this mechanical age, particularly with the almost universal use of automobiles, we are getting more or less calloused to serious, and even fatal, accidents ... Statistics tell us that there are an even larger number of accidents annually on the farms and in the homes ...

"The National Safety Council is responsible for the statement that more than twice as many persons met accidental death in their homes during 1934 as were killed by accidents in all kinds of gainful employment ... The fact that twice as many people are killed in the home as in industrial plants does not mean that the home is twice as dangerous. It must be remembered that only a fraction of the population consists of industrial workers, but practically everybody has a home. Similarly, a large percentage of people spend more of their time in the home than on the roads, or other places where they are exposed to accidents, and that is especially true of the homemakers of the country.

"Recently we have attempted to conduct a survey in Maryland to ascertain the number of accidents, as well as their nature and causes, with a view to providing basic material for educational efforts along lines of prevention. It appears to me that a well-worked-out program and an organized effort designed to impress upon rural people the necessity for care in their daily occupations and help them to avoid these unnecessary causes of distress, expense, and even death, rank among the most valuable services it is possible to render."

Injuries to insured Maryland readers of a Pennsylvania farm magazine during the period April 1, 1937 to April 1, 1940, are tabulated in table 10.

62/ Symons, T. B., Dr., dean and director, Agricultural Extension Service, University of Maryland, College Park, Md.

Table 10.- Number of injury claims filed by Maryland readers of a Pennsylvania farm magazine, by amount of claims and agency of injury, April 1, 1937 to April 1, 1940

| Amount of claims paid | Agency associated with injuries | | | | | | Total |
|-----------------------|---------------------------------|-------------|-------------|-------------|---------------|--------|--------|
| | Animals | Machines | Small tools | Auto-mobile | Miscellaneous | | |
| Dollars | Number | Number | Number | Number | Number | Number | Number |
| Under 10 | 21 | 32 | 45 | 13 | 149 | | 260 |
| 10-19 | 11 | 6 | 3 | 10 | 41 | | 71 |
| 20-29 | 2 | 4 | 3 | 3 | 27 | | 39 |
| 30-39 | 2 | 2 | - | 5 | 3 | | 12 |
| 40-49 | - | 4 | - | - | 8 | | 12 |
| 50-59 | - | 1 | | 4 | <u>1/</u> 2 | | 7 |
| 60-69 | | | | 1 | | | 1 |
| 70-79 | | | | 1 | | | 1 |
| 80-89 | | | | 1 | | | 1 |
| 200-299 | | <u>2/</u> 1 | | 1 | <u>2/</u> 1 | | 3 |
| 1,000 and over | | | | <u>2/</u> 2 | | | 2 |
| Total | 36 | 50 | 51 | 41 | 231 | | 409 |

1/ Represents 1 death.

2/ Represents deaths.

Data from records of the Pennsylvania Farmer, Pittsburgh, Pa. The insurance was with a private casualty company.

Massachusetts

Total agricultural accidents in Massachusetts were less in 1937 than in 1934, according to a report by the Department of Industrial Accidents for the fiscal years ending June 30, 1934 and 1937. But there were slight increases in deaths and in permanent total disabilities. The average length of time lost per accident was 99 days in 1934 and 115 days in 1937. The difference is explained by the fact that 6,000 days lost time are calculated for each death or permanent total disability.

Compulsory provisions of workmen's compensation insurance do not include agricultural employees, but they may elect coverage. As common law defenses are allowed, no particular encouragement exists for employers to insure.

Michigan

Farmers are excluded from the compulsory provisions of the Workmen's Compensation Act, although they may elect coverage, in Michigan. Employers' defenses at common law are allowed, however, to those not electing to insure.

A project to promote safety in Michigan farm homes, conducted in 12 counties and participated in by 2,577 women under the direction of the home demonstration leader, reported results as follows: 63/

- (1) Fire hazards eliminated, 2,051,
- (2) Changes in practice to lessen danger of fire, 1,467.
- (3) Changes in practice to decrease number of falls and cuts, 1,449.
- (4) Repairs made to hazardous items, such as rails, steps, and torn rugs, 1,073.
- (5) Unnecessary poisons were eliminated and those kept were correctly marked and labeled by 1,500 families.

Minnesota

In Minnesota, although farmers are excluded from the compulsory terms of workmen's compensation, an employer of farm laborers may assume the liability for compensation by the purchase and acceptance of a valid policy covering farm laborers, or may voluntarily come under the act. The farm laborer, or his dependents, under the private policy, shall accept, in the event of injury or death, compensation and benefits according to the Workmen's Compensation Act.

In 1938 a survey of deaths from accidents occurring to residents of rural or farm homes showed that 71 fatal accidents occurred by type and age groups as follows:

Table 11.- Accidental deaths to rural and farm residents in Minnesota, by type and age groups, 1938

| Type (occupational) <u>1/</u> | Total | Under 14 years | 15-24 years | 25-64 years | 65 and over |
|----------------------------------|-----------|----------------|-------------|-------------|-------------|
| | Number | Number | Number | Number | Number |
| Injury by animals | 22 | 0 | 1 | 9 | 12 |
| Falls | 17 | 0 | 5 | 3 | 9 |
| Machinery | 13 | 0 | 2 | 9 | 2 |
| Run over by tractors | 6 | 0 | 1 | 5 | 0 |
| Run over by wagons | 4 | 0 | 0 | 2 | 2 |
| Falling trees | 2 | 0 | 0 | 1 | 1 |
| Other | 7 | 0 | 2 | 0 | 5 |
| Total | 71 | 0 | 11 | 29 | 31 |

1/ Occurring on farm premises, not on public roads or other public places.

Data classified by Gerda C. Pierson, director, Division of Birth and Accident Records and Vital Statistics, Minnesota, 1938.

63/ Data from Edna V. Smith, State Home Demonstration Leader, East Lansing, Michigan, Feb. 10, 1936.

The following subjects were discussed at the program of the Minnesota Farm Safety Conference held at St. Paul on October 3, 1941: Facts About Farm and Home Accidents, Safe Operation of Farm Machinery, Farm Accident and Fire Survey, Communicable Disease Control, Hunting Safety, The Definite Things We Can Do About Automobile Accidents, More Human Implications of the Land Problem, Let's Work Together, Farm Home Safety, The Safe Handling of Livestock to Prevent Accidents, Safeguarding the Preschool Child Against Accidents. A general summary of these topics was presented.

The Minnesota Home Safety Program of the State Safety Council attempts to guide activities by the lessons of accident experience. 64/ The Bureau of Vital Statistics queries the physician or informant listed on the death certificate of every home- or farm-accident victim. Sampling studies of nonfatal injuries have been started in Olmstead County, location of the famous Mayo Clinic. Every accidental injury treated by a physician is reported to the District Health Officer.

Mississippi

Without a Workmen's Compensation Act, farm workers in Mississippi have recourse, in the event of injuries sustained in their occupations, to the common law statutes of employer's liability. No statistics on farm accidents were discovered. An opportunity to promote safety education in this State is now provided through activities planned by the War Board 65/ in which the United States Employment Service, vocational education officials and the Farm Security Administration would cooperate in training tractor drivers, blacksmiths, etc., and would provide central living facilities and transportation for migratory laborers in agricultural work.

Missouri

Farmers in Missouri are excluded from the compulsory provisions of workmen's compensation but any employer exempted may file with the Commission notice of his election to be accepted. He must post a notice of the insurance on the farm premises and any employee entering or remaining in the services of such employer 30 days after the posting of such notice shall be presumed to accept coverage also, unless he files jointly with employer a written notice of rejection of the plan.

64/ Notes from Home Safety Panel presented by C. H. Zealand, Executive Secretary, Minnesota Safety Council; and T. F. Wold, Minnesota Department of Health, Proc. 29th Safety Congress, Oct 7-11, 1940, National Safety Council.

65/ War Board Activities No. 23, May 19, 1941.

Montana

Farm labor is included under the compulsory provisions of workmen's compensation if the work is classified as hazardous, in Montana. Any farm employer may elect to comply with the provisions of plan number 2 (insurance in private company) or plan number 3 (insurance in State fund), in which event he shall not be liable to respond in damages at common law or by statute. Employees of such employers shall be deemed to have elected to come under these provisions unless they shall file with the board a specific election not to be so bound. An amendment, approved March 3, 1939, makes it compulsory for all employers in a hazardous occupation to enroll under the act.

Data on insurance exposure and the number and classification of accidents in Montana for the period July 1, 1915, to June 30, 1928, were reported as follows:

Table 12.- Number of claims filed by Montana farm employees under workmen's compensation, by type and extent of injury, and the ratio of claims to number insured, July 1, 1915 to June 20, 1928

| Type | Number insured (Exposure) | Number of claims | Percent- age of claims to exposure | Extent of injuries | | |
|-------------------|---------------------------------|------------------------|---|--------------------|---------------|---------------|
| | | | | Temporary | Permanent | Fatal |
| | <u>Number</u> | <u>Number</u> | <u>Percent</u> | <u>Number</u> | <u>Number</u> | <u>Number</u> |
| Laborers | 1,696 | 494 | 29.1 | 480 | 13 | 1 |
| Machine operators | 58 | 33 | 56.9 | 30 | 2 | 1 |
| Average | | | 30.0 | | | |

Shanks' Thesis, Iowa State College, 1931.

Nebraska

Farmers are excluded from the compulsory provisions of workmen's compensation in Nebraska, but any employer may elect to provide and pay for compensation insurance. The procurement of such a policy is conclusive proof of the employer's and employee's election to be bound by the terms of the act. The plan may be rejected by the employee before an accident occurs. The sale of machinery which does not conform to the safety code is forbidden. 66/

Loss of 92 lives by fires were reported in Nebraska in 1939, with property losses of \$2,293,774. These deaths, by causes, are listed as follows: 67/ Gasoline explosions, 7; gasoline stove fires, 6; kerosene

66/ See footnote 52 on p. 26.

67/ "Fires Take 92 Lives in State Last Year," Mutual Insurance Journal, May 1940.

stoves fires, 5; starting fires with volatile fluids, 18; ignition of other volatile fluids, 1; burning buildings, 7; automobile burning, 10; tractor fires, 2; careless use of matches, 2; clothing catching fire, 11; bonfires and field fires, 3; lightning, 1; electricity, 13; blowtorch, 1; and firemen in line of duty, 5. There were 41 men, 36 women, 10 children, and 5 unclassified who lost their lives from fires."

Farm accidents, collected from newspaper records from May 7, 1929 to December 30, 1930, show that farmers are injured much more often than either members of their families or hired hands (table 13).

Table 13.- Farm accidents in Nebraska by occupations and extent of injuries

| Occupation of accident victim | | Extent of injuries | | |
|-------------------------------|--------|--------------------|--------|--|
| Class | Number | Kind | Number | |
| Farmers | 836 | Injuries | 1,088 | |
| Members of family | 406 | Disabilities | 169 | |
| Hired help | 122 | Deaths | 107 | |
| Total | 1,364 | Total | 1,364 | |

Shanks' Thesis, Iowa State College, 1931.

A further analysis showed causative agents as follows: Animals, 481 persons injured, with 40 deaths; machinery and general farm equipment, 409 injured, with 27 deaths; falls and contacts with moving objects, 266, with 22 deaths; and miscellaneous, 208, with 18 deaths.

New Jersey.

The New Jersey Workmen's Compensation Act presumes the inclusion of farm employers by election although they are excluded from compulsory insurance. But in practice, many farmers insure, as they are not allowed to plead common-law defenses.

Claims against a private casualty carrier made by New Jersey Readers of a Pennsylvania farm magazine, by amount and agency associated with the injury, were reported as shown in table 14.

Table 14.- Number of injury claims filed by New Jersey readers of a Pennsylvania farm magazine, by amount of claim and agency of injury, April 1, 1937 to April 1, 1940

| Amount of claims paid | Agency associated with injuries | | | | | | Total |
|-----------------------|---------------------------------|-----------|-------------|--------------|---------------|--------|--------|
| | Animals | Machinery | Small tools | Auto-mobiles | Miscellaneous | | |
| Dollars | Number | Number | Number | Number | Number | Number | Number |
| Under 10 | 15 | 11 | 24 | 12 | 75 | | 137 |
| 10-19 | 9 | 7 | 3 | 8 | 34 | | 61 |
| 20-29 | 1 | 2 | 2 | 9 | 11 | | 25 |
| 30-39 | 2 | - | - | 5 | 2 | | 9 |
| 40-49 | 1 | 1 | 1 | 3 | 6 | | 12 |
| 50-59 | | | | 1 | | | 1 |
| 60-99 | | | | 1 | | | 1 |
| 100 | | | 1/ | 1 | | | 1 |
| Total | 28 | 21 | 31 | 39 | 128 | | 247 |

1/ Represents death.

Data adapted from records of the Pennsylvania Farmer, Pittsburgh, Pa. The insurance was carried by a private casualty company.

New York

Farm laborers are excluded from the compulsory terms of workmen's compensation, in New York, but an employer may bring in an employment that is not listed within the coverage in accordance with section 50 (which provides for self-assurance with fund or private carrier). An amendment to the act approved April 21, 1941, (C. H. 639) provides for the voluntary coverage of exempted employment by the action of the employer alone and takes the right away from employees to reject coverage.

A report on the number of claims and payments under the general Farm Labor Code in New York for 1937, 1938, and 1939, is given in table 15.

A comparison of the New York experience of farm labor with that of similar compensation reports from members of the National Council gathered in 37 States and the District of Columbia shows that the average amount paid per claim in New York was \$364, whereas the average amount per claim for the group of States was only \$230.

Table 15.- Injury claims and amounts paid to New York farmers under workmen's compensation, by kinds of injury, 1937, 1938, and 1939

| Year | Kind of injury | Total claims | Medical payments | Indemnity |
|------|------------------------|--------------|------------------|-----------|
| | | Number | Dollars | Dollars |
| 1939 | Death | 6 | 2,221 | 25,824 |
| | Major permanent | 14 | 9,925 | 39,569 |
| | Minor permanent | 78 | 13,950 | 42,439 |
| | Temporary | 270 | 22,459 | 27,306 |
| | Noncompensable medical | 841 | 10,228 | 0 |
| 1938 | Death | 6 | 219 | 18,953 |
| | Major permanent | 8 | 4,332 | 30,590 |
| | Minor permanent | 72 | 12,085 | 34,520 |
| | Temporary | 291 | 26,121 | 35,264 |
| | Noncompensable medical | 921 | 11,833 | 0 |
| 1937 | Death | 5 | 280 | 15,297 |
| | Major permanent | 8 | 7,417 | 18,478 |
| | Minor permanent | 101 | 17,838 | 48,891 |
| | Temporary | 304 | 26,406 | 31,096 |
| | Noncompensable medical | 909 | 11,135 | 0 |

Based on experience for general farm labor (code 0006). Furnished by Louis H. Pink, Superintendent of Insurance, New York State.

North Dakota

The Workmen's Compensation Act excludes agriculture from its provisions. However, an employer in North Dakota may comply with the Act and not be liable under common law or by statutes during the period the insurance is in force, provided the injured employee has remained in his service with notice that his employer has paid the premiums. The continuation in the service of such employer with such notice shall be deemed a waiver by the employee of his right of action.

Activities of the North Dakota Agricultural Extension Service in the interest of safety for farmers was reported as follows: 68/

"During the past six months we have been conducting a program designed to prevent accidents from all causes about the farm. This has taken the form of a series of news articles, radio broadcasts, and discussions at the various Extension meetings conducted through the State. We have particularly stressed the elimination of accidents resulting from fire and farm machinery operation.

68/ Schultz, Arthur H., Agricultural Extension Engineer, Agricultural College, Fargo, N. Dak., correspondence of May 12, 1942.

We have already received several reports of serious injury and death resulting from farm machinery operation this spring.

"North Dakota farmers have access to little or no fire fighting equipment. The majority of the farms do not even have small hand fire extinguishers about the premises. Consequently, it is practically impossible to control a fire once it has gotten headway."

No statistics on farm accidents were discovered.

Ohio

Farm labor is included in the provisions of workmen's compensation, where three or more workmen are employed regularly.

The Ohio Farm Bureau initiated a program in March 1942 for promoting farm safety through 458 vocational agricultural units in high schools.^{69/} The plan involves a survey of farm fires and accidents. Each vocational student reports the fires and accidents that occur on his father's farm and on the farm of three neighbors. The completed surveys will be collected by the vocational instructors and forwarded at stated intervals.

It was estimated that from 12,000 to 25,000 farm reports would be obtained, depending upon the cooperation of teachers, students, and farmers. This project is the result of the organization of a State Farm Fire and Accident Prevention Planning Committee. Data will be tabulated and analyzed by the Department of Rural Economics at Ohio State University, and used as a basis for a broad educational campaign.

Both the Farm Bureau and the Farm Bureau Insurance Companies have utilized, with good results, sound-photo films to develop an interest and activity in farm fire and accident prevention.

A steady increase in the number of accidents in agriculture, classified as to four kinds of employment, is indicated in the following reports for 1929, 1932, 1939, and 1940. (See table 16.)

The annual bulletins of the Industrial Commission furnish data on the economy of prevention and premium rates. Premium rates covering agricultural employment are compared with those for other occupations. In 1941, the premium rate per \$100 of pay roll for operators of farm machinery was \$7.00; for general farming, \$3.50; nurserymen, \$1.50; and florists, 80 cents. By comparison, the rate for steel workers was \$1.00; cement manufacturers, \$1.30; and rubber tire manufacturers, 90 cents.

Data for an 11-year period, submitted in the 1941 bulletin, showed that the premium rate for operation of farm machines had advanced from \$5.00

^{69/} Pontious, Harry M., Director of Safety, Ohio Farm Bureau, Columbus, Ohio, reported.

in 1931 to \$7.50 in 1936 and back to \$6.50 in 1940 and up to \$7.00 in 1941. The premium rate on general farming was \$2.50 in 1931, \$4.50 in 1938 and 1939, and \$3.50 in 1941. For nurserymen the rate was 90 cents in 1931, as high as \$2.30 in 1935, 1936, and 1937, and down to \$1.50 in 1941. The rate for florists was 80 cents both in 1931 and 1941, the highest being \$1.50 in 1935 and 1936. These data are examples of how rates are shifted upward when losses are heavy, and downward when accidents become less expensive.

The 1941 bulletin compares the frequency of accidents in agriculture with other industries: "In the period 1926-1939, when many industrial classifications were making material reductions in accident frequency, the experience of the agricultural groups was in the opposite direction... In 1939 agriculture ... filed more than two and one-half times as many claims per \$1,000 pay roll as were filed in 1926. During the 5-year period, 1936-1940 inclusive ... on a cumulative pay roll of \$40,620,000, Ohio farmers ... paid State Insurance Fund premiums totaling \$1,239,200, while the accident cost charge was \$857,900. While this gave the classification a 5-year surplus of \$381,300, a prior deficit of \$251,600 left agriculture with a net surplus of \$129,700 on December 31, 1940."

Table 16.- Ohio accidents, including fatalities, by kinds of agricultural work for specified periods

| Kind of farm work | 1940 | | 1939 | | 1932 | | 1929 | |
|----------------------------------|---------------------|--------|--------|--------|--------|--------|--------|--------|
| | Fatal ^{1/} | Total | Fatal | Total | Fatal | Total | Fatal | Total |
| | Number | Number | Number | Number | Number | Number | Number | Number |
| Florists | 2 | 204 | 1 | 196 | 2 | 221 | 4 | 203 |
| Nurserymen | 0 | 161 | 3 | 176 | 3 | 113 | 0 | 90 |
| General farming | 11 | 1,137 | 10 | 1,112 | 5 | 808 | 11 | 622 |
| Operation of farm machines | 2 | 52 | 1 | 60 | 2 | 51 | 1 | 64 |
| Total | 15 | 1,554 | 15 | 1,544 | 12 | 1,193 | 16 | 979 |

1/ Fatal cases are included in the total columns for all years listed.

Accidents in Agriculture, Annual Bulletins of the Ohio Industrial Commission, Columbus, Ohio.

Oregon

Farmers are excluded from provisions of workmen's compensation. Available data on the farmer's position relative to compensation is quoted as follows:^{70/} "The Supreme Court of Oregon decided in 1917 that farmers

^{70/} See footnote 52 on p. 26.

were not entitled to plead common law defenses. However, compensation insurance is still (1931) elective for farmers. The insurance in Oregon differs from that in other States in that the workman is required to contribute to the premiums. The A. S.M.E. Boiler Code ... is in force but does not apply to farm boilers. Portable circular wood saws ... are covered by a special safety order and the general safety rulings apply to farmers also."

No statistics.

Pennsylvania

Farmers are excluded from the compulsory provisions of workmen's compensation but may elect to be included.

Data on injury claims and insurance paid Pennsylvania agricultural workers for a 5-year period is given in table 17.

Table 17.- Workmen's compensation claims of three Pennsylvania agricultural groups, by amount and severity of injury, 1933-37 inclusive

| Year | Kind of work | Temporary disability | | Permanent disability 1/ | | Medical | Deaths | |
|------|--------------|----------------------|---------|-------------------------|---------|---------|--------|---------|
| | | Amount | Amount | Amount | Amount | | | |
| | | Number | Dollars | Number | Dollars | Dollars | Number | Dollars |
| 1933 | Farm labor | 467 | 11,995 | 10 | 8,666 | 16,657 | 7 | 14,414 |
| | Nurserymen | 98 | 5,076 | 2 | 4,639 | 6,224 | 0 | 0 |
| | Florists | 56 | 2,049 | 3 | 1,763 | 4,018 | 0 | 0 |
| 1934 | Farm labor | 357 | 13,386 | 11 | 15,296 | 18,408 | 2 | 2,938 |
| | Nurserymen | 89 | 4,120 | 4 | 6,343 | 4,861 | 1 | 1,830 |
| | Florists | 80 | 2,304 | 5 | 1,653 | 6,680 | 0 | 0 |
| 1935 | Farm labor | 379 | 14,760 | 16 | 11,422 | 20,246 | 10 | 13,350 |
| | Nurserymen | 103 | 4,893 | 4 | 5,528 | 4,605 | 0 | 0 |
| | Florists | 80 | 2,669 | 3 | 4,320 | 5,447 | 0 | 0 |
| 1936 | Farm labor | 367 | 14,392 | 19 | 16,874 | 21,969 | 5 | 17,409 |
| | Nurserymen | 134 | 6,733 | 8 | 17,116 | 9,189 | 4 | 17,715 |
| | Florists | 63 | 3,404 | 5 | 6,387 | 4,683 | 0 | 0 |
| 1937 | Farm labor | 407 | 18,936 | 11 | 14,170 | 26,402 | 10 | 34,086 |
| | Nurserymen | 130 | 8,386 | 5 | 5,344 | 10,480 | 1 | 3,150 |
| | Florists | 64 | 2,379 | 2 | 5,276 | 4,664 | 0 | 0 |

1/ Includes major and minor permanent disabilities.

Data as reported by Pennsylvania Compensation Rating and Inspection Bureau, Philadelphia, November 30, 1940.

In addition, a rather comprehensive listing of claims and amounts paid to Pennsylvania readers of a farm magazine, which was the medium for an insurance plan by a private casualty carrier, is given in table 18.

Table 18.- Number of claims paid to readers of a Pennsylvania farm magazine, by amount and agency of injury, April 1, 1937 to April 1, 1940

| Amount of claims | Total injured | Total deaths | Agency of injury | | | | |
|------------------|---------------|--------------|------------------|----------|-------------|------------|---------------|
| | | | Animals | Machines | Small tools | Automobile | Miscellaneous |
| Dollars | Number | Number | Number | Number | Number | Number | Number |
| Under 10 | 2,728 | | 276 | 420 | 395 | 183 | 1,454 |
| 10-19 | 945 | | 128 | 156 | 90 | 104 | 467 |
| 20-29 | 447 | | 41 | 82 | 28 | 65 | 231 |
| 30-39 | 112 | 1 | 11 (1) | 25 | 8 | 20 | 48 |
| 40-49 | 180 | | 18 | 37 | 6 | 35 | 84 |
| 50-59 | 41 | 2 | 6 | 4 (1) | | 24 | 7 (1) |
| 60-69 | 15 | | 1 | 3 | 2 | 3 | 6 |
| 70-79 | 7 | | 1 | 1 | | 2 | 3 |
| 80-89 | 12 | | | | | 12 | |
| 90-99 | 2 | | 1 | | | 1 | |
| 100-199 | 18 | 22 | | (5) | | 18 (1) | (16) |
| 200-299 | | 5 | (1) | (1) | | | (3) |
| 500 | | 10 | | (4) | | (6) | |
| 1,000 | | 7 | | | | (6) | (1) |
| Total | 4,507 | 47 | 483 (2) | 728 (11) | 529 | 467 (13) | 2,300 (21) |

() Represents deaths.

Data adapted from records of the Pennsylvania Farmer, Pittsburgh, Pa. The insurance was carried by a private casualty company.

The 21 deaths from miscellaneous causes in table 18 were reported as follows: Four by falling trees; two burned to death; two fell from hayloads; and one each from discharge of gun, swallowing fish bone, working on train cars, while in barn, moving car with power truck, motorcycle, row boat sank, steel girder fell on leg, deer hunting, knocked off ladder, dismounting storage bin, struck by lightning, and falling under train.

Rhode Island

Farmers are excluded from provisions of workmen's compensation although they may elect coverage, but they must post in conspicuous places a summary of the major provisions of the law. Under the amendment to the act (H-953), approved March 26, 1942, a penalty is provided for failure to execute the specified requirements.

No statistics on farm accidents in Rhode Island were discovered.

South Dakota

Although farmers are excluded from provisions of workmen's compensation, any who are engaged in operating for profit threshing machines, grain combines, corn shellers, cornhuskers, shredders, silage cutters, and seed hullers, are subject to the act. But the statutes do not apply to an owner in South Dakota who uses the machines on his or a neighbor's farm in any work-exchange arrangement. The act states that excepted employees may place themselves voluntarily under the insurance terms or an employer may insure and employees exempt themselves. A self-insured employer must furnish proof of financial ability under the amendment (H-128) passed March 7, 1941.

No statistics on farm accidents were discovered.

Utah

Farmers are excluded from provisions of workmen's compensation but have a right to come under the compulsory terms of the act by compliance.

The principal farm-accident hazards in Utah were reported as follows: 71/

"People lose their lives each year while moving hay derricks which come in contact with high tension electric wires. We have given warning on this but we still go on having accidents.

"We still have a number of people killed each year from enraged bulls, a thing entirely to be avoided if proper equipment and construction are provided.

"We have made some effort and written special letters to our county agents to emphasize the removal of those things which will most likely give accidents ... we have considerable data on the hazards of hail storms, explosion of threshers from smutty grain and some fire hazards"

Washington

Although interpreted to include farmers under its compulsory provisions, the Workmen's Compensation Act, in practice, excludes the industry. The basis of divided opinion is traced to the statement that the act is intended to apply to and include all inherently hazardous works and occupations. Section 7676 of the act lists agricultural workers and specifies premium rates.

71/ Peterson, William, Director of Agricultural Extension Service, Logan, Utah, correspondence of Feb. 26, 1936.

In 1935, the agricultural industry insured, under elective coverage, 1,795,725 hours of work and had 136 time-loss accidents and 11 permanent partial-disability accidents. ^{72/} Causes of accidents were classified under 32 subheads. Fall were listed most frequently.

Washington farmers who insure, come under industrial safety regulations and their machinery is inspected. ^{73/}

West Virginia

Farmers are excluded from provisions of workmen's compensation but they may elect to come under terms of the act.

The character and extent of accident experience (no deaths reported), of a private casualty company insuring West Virginia readers of a Pennsylvania farm magazine, is given in table 19.

Table 19.-- Number of claims paid to West Virginia readers of a Pennsylvania farm magazine, by amount and frequency of injury, April 1, 1937 to April 1, 1940

| Amount of claims paid | Agency associated with injuries | | | | | | Total |
|-----------------------|---------------------------------|-----------|------------|--------------|---------------|--------|-------|
| | Animals | Machinery | Hand tools | Auto-mobiles | Miscellaneous | | |
| | Number | Number | Number | Number | Number | Number | |
| Dollars | | | | | | | |
| Under 10 | 6 | 5 | 9 | 8 | 31 | | 59 |
| 10-19 | 4 | 3 | 2 | 2 | 23 | | 34 |
| 20-29 | 1 | 2 | - | 5 | 7 | | 15 |
| 30-39 | 1 | 1 | - | - | - | | 2 |
| 40-49 | - | - | - | - | 4 | | 4 |
| Total | 12 | 11 | 11 | 15 | 65 | | 114 |

Data adapted from records of the Pennsylvania Farmer, Pittsburgh, Pa. The insurance was carried by a private casualty company.

Wisconsin

One source of information for Wisconsin stated: "Farmers may elect compensation insurance. Commercial operators of machines such as balers, threshers, huskers, are required to elect or lose their common law defenses. Safety coats, seventeen in number, are in force and apply to farms insofar as appropriate. In addition, the labor laws (49) have special provisions covering the operation and sale of corn shredders and an ancient ruling regarding tumbling rod drives of threshing machines is still in force. Provision is also made for at least 30 minutes per month instruction in the public schools on accident prevention." ^{74/}

^{72/} Data from Washington Department of Labor and Industries, 1936.

^{73/} See footnote 52 on p. 26.

^{74/} See footnote 52 on p. 26.

An analysis of the causes of 2,445 deaths from farm accidents in the State during the period 1934-37, inclusive shows that 42 percent were due to falls, 14 percent to heat, 13 percent to drownings, 12 percent to burns, 6 percent to firearms, 4 percent to poisons, 4 percent to animals, 3 percent to machinery, and 2 percent to electricity. 75/

Other States

Such information as could be found on the insurance requirements for agricultural workers under State compensation laws is shown for certain States in table 20. This table supplements the preceding report and includes information for States not having statistical records of accidents. In most of these States agricultural employment is excluded. In addition, the numerical limitation as to the minimum number of employees would automatically exclude the small farmers.

75/ "Beware the Perils of Peace." Wisconsin Agriculturist and Farmer, June 29, 1940.

Table 20.- Comparison of agriculture with industries as to insurance requirements of workmen's compensation laws for selected States

| State | Insurance requirements of workmen's compensation laws ^{1/} | | | Remarks |
|--------------------------|---|--|--|--|
| | As to industries meeting specified conditions | Numerical limitation (Minimum number of employees to which acts apply) | As to agriculture (Included or excluded) ^{2/} | |
| Arizona | Compulsory | 3 | Partly included | Applies to agriculture if machinery is used |
| Arkansas | do. | 5 | Excluded | |
| Colorado | Elective | 4 | do. | |
| Connecticut | do. | 5 | Included | |
| Georgia | do. | 10 | Excluded | |
| Indiana | do. | None | do. | |
| Maine | do. | 6 | do. | Common law defenses allowed if less than 5 employed |
| Nevada | do. | None | Included | Farmers assumed to be included unless they formally reject |
| New Hampshire | do. | 5 | Excluded | Numerical limitation applies only in case of nonhazardous employment |
| New Mexico ^{3/} | Elective | 4 | Excluded | Farmers excluded on basis that occupation is not listed as extra hazardous |
| North Carolina | do. | 5 | do. | |
| Oklahoma ^{4/} | Compulsory | 2 | do. | Farming listed as nonhazardous occupation |
| South Carolina | Elective | 15 | do. | |

Continued

Table 20.- Comparison of agriculture with industries as to insurance requirements of workmen's compensation laws for selected States - Contd.

| State | Insurance requirements of workmen's compensation laws ^{1/} | | | Remarks |
|-----------|---|--|--|--|
| | As to industries meeting specified conditions | Numerical limitation (Minimum number of employees to which acts apply) | As to agriculture (Included or excluded) ^{2/} | |
| Tennessee | do. | 5 | do. | |
| Texas | do. | 3 | do. | |
| Vermont | do. | 11 | Included | Election voluntary if less than 10 employees |
| Virginia | do. | 7 | Excluded | Numerical limitation reduced from 11 to 7 by amendment of March 10, 1942 |
| Wyoming | Compulsory | None | Partly included | Power farming if 5 are employed 6 months and other hazardous phases are included |

^{1/} Problem of Workmen's Compensation Insurance in the United States and Canada, Bulletin 672, U. S. Dept. Labor, Appendix 2, 1940.

^{2/} Workmen's compensation statutory provisions, coverage of farm labor.

^{3/} Numerical exemption does not apply if injury occurs when at work on any derrick, scaffolding, or pole, or such structure 10 feet or more above ground.

^{4/} Amended May 15, 1941 to delete exception of dairies.



APPENDIX

- Exhibit I - Claims and Medical Expenses of Farm Labor
Under Workmen's Compensation, and Amount
of Payroll, Policy Years 1935 and 1936
Combined
- Exhibit II - Individual Accident Reports of Farm Labor
From Workmen's Compensation Experience
- Exhibit III - Workmen's Compensation Premium Rates for
Farm Labor
- Exhibit IV - Suggested Questionnaire Form for Reporting
Farm Accidents

Exhibit I

Claims and medical expenses of farm labor under workmen's compensation, and amount of payroll, policy years 1935 and 1936 combined 1/

| State | Payroll | Serious claims | | Nonserious claims | | Medical expense | Total losses | |
|--------------------------|-------------|----------------|---------|-------------------|-----------|-----------------|--------------|-----------|
| | | Cases | Losses | Cases | Losses | | Cases | Amount |
| | | Number | Dollars | Number | Dollars | | Number | Dollars |
| Alabama | 342,200 | 2 | 3,768 | 16 | 756 | 1,785 | 18 | 6,309 |
| Arizona | 6,322,400 | 15 | 33,098 | 851 | 77,054 | 78,203 | 866 | 188,355 |
| California ... | 136,252,600 | 207 | 416,771 | 9,019 | 697,528 | 1,093,643 | 9,226 | 2,207,942 |
| Colorado | 2,401,900 | 5 | 11,652 | 148 | 11,418 | 17,228 | 153 | 40,298 |
| Connecticut .. | 8,092,000 | 13 | 25,314 | 408 | 40,754 | 70,825 | 421 | 136,893 |
| District of Columbia ... | 27,600 | - | - | 1 | 22 | 28 | 1 | 50 |
| Florida | 5,047,800 | 7 | 7,248 | 175 | 7,804 | 22,680 | 182 | 37,932 |
| Georgia | 1,437,900 | 1 | 100 | 140 | 3,729 | 9,377 | 141 | 13,206 |
| Idaho | 154,300 | - | - | 8 | 222 | 593 | 8 | 815 |
| Illinois | 3,441,300 | 8 | 16,359 | 223 | 24,366 | 23,272 | 231 | 64,497 |
| Indiana | 2,734,100 | 6 | 7,355 | 218 | 12,175 | 14,947 | 224 | 34,477 |
| Iowa | 703,900 | - | - | 19 | 1,134 | 2,247 | 19 | 3,381 |
| Kansas | 581,300 | 1 | 2,539 | 53 | 2,643 | 3,805 | 54 | 8,987 |
| Kentucky | 1,323,100 | 2 | 3,089 | 78 | 3,687 | 7,467 | 80 | 14,243 |
| Louisiana | 7,835,900 | 16 | 14,310 | 1,093 | 30,619 | 45,548 | 1,109 | 90,477 |
| Maine | 630,500 | 1 | 2,163 | 39 | 5,683 | 4,042 | 40 | 11,888 |
| Maryland | 2,131,100 | 1 | 746 | 155 | 9,393 | 13,269 | 166 | 23,408 |
| Massachusetts | 6,419,100 | 14 | 34,611 | 319 | 35,189 | 42,240 | 333 | 112,040 |
| Michigan | 5,468,800 | 6 | 14,200 | 246 | 20,508 | 18,136 | 252 | 52,844 |
| Minnesota | 2,470,100 | 8 | 11,915 | 177 | 17,062 | 17,254 | 185 | 46,231 |
| Missouri | 1,604,400 | 4 | 19,174 | 164 | 8,687 | 10,975 | 168 | 38,836 |
| Montana | 639,000 | 5 | 12,561 | 27 | 2,424 | 8,055 | 32 | 23,140 |
| Nebraska | 621,300 | 3 | 3,482 | 45 | 6,030 | 5,634 | 48 | 15,146 |
| New Hampshire | 1,618,100 | - | - | 114 | 12,079 | 8,033 | 114 | 20,112 |
| New Jersey ... | 10,459,600 | 30 | 74,077 | 733 | 68,610 | 66,142 | 763 | 208,829 |
| New Mexico ... | 448,100 | 1 | 750 | 25 | 1,157 | 1,829 | 26 | 3,736 |
| New York | 10,369,500 | 19 | 59,725 | 681 | 100,773 | 94,365 | 700 | 254,864 |
| North Carolina | 1,986,700 | 5 | 7,544 | 128 | 5,733 | 8,310 | 133 | 21,587 |
| Oklahoma | 417,200 | 1 | 607 | 24 | 1,950 | 2,383 | 25 | 4,940 |
| Rhode Island . | 836,400 | - | - | 32 | 3,381 | 3,736 | 32 | 7,117 |
| South Carolina | 552,500 | 2 | 3,431 | 9 | 235 | 808 | 11 | 4,474 |
| South Dakota . | 105,000 | - | - | 18 | 590 | 768 | 18 | 1,358 |
| Tennessee | 439,600 | - | - | 29 | 951 | 2,159 | 29 | 3,110 |
| Texas | 753,500 | 2 | 1,525 | 53 | 3,080 | 4,365 | 55 | 8,970 |
| Utah | 295,900 | 1 | 1,918 | 60 | 1,514 | 2,643 | 61 | 6,080 |
| Vermont | 1,012,000 | 3 | 4,330 | 55 | 3,204 | 4,680 | 58 | 12,414 |
| Virginia | 2,730,300 | 5 | 11,825 | 160 | 8,797 | 11,364 | 165 | 31,986 |
| Wisconsin | 3,276,600 | 2 | 2,100 | 471 | 30,547 | 24,996 | 473 | 57,643 |
| Grand total | 232,297,600 | 396 | 808,387 | 16,224 | 1,261,988 | 1,748,240 | 16,620 | 3,818,615 |

1/ Member reports to National Council of Compensation Insurance, A. Z. Skelking, actuary, correspondence of June 8, 1939.

Exhibit II

Individual accident reports of farm labor from
workmen's compensation experience

Serious accidents, including deaths, under workmen's compensation, by cause and amount paid, based on reports from 37 States and the District of Columbia, policy years 1935 and 1936 combined ^{1/}

| Cause of accident | Cases | Compen- sation | Medical | Total |
|--|---------------|-------------------|----------------|----------------|
| | <u>Number</u> | <u>Dollars</u> | <u>Dollars</u> | <u>Dollars</u> |
| Falls from heights (ladders, trees, roofs, etc.) | 127 | 211,691 | 96,257 | 307,948 |
| Other falls | 39 | 43,558 | 24,922 | 68,480 |
| Animals (kicks, bites, etc.) | 94 | 155,717 | 60,353 | 216,070 |
| Automobile accidents | 60 | 107,088 | 25,451 | 132,539 |
| Operation of farm machinery | 74 | 114,018 | 30,641 | 144,659 |
| Struck by falling or moving objects | 78 | 95,220 | 24,777 | 119,997 |
| Cuts, bruises, lacerations . | 35 | 33,035 | 11,478 | 44,513 |
| Strains, including hernia .. | 36 | 33,019 | 12,537 | 45,556 |
| Diseases and infections | 17 | 31,571 | 6,100 | 37,671 |
| Miscellaneous | 67 | 118,998 | 48,574 | 167,572 |
| Total | 627 | 943,915 | 341,090 | 1,285,005 |

^{1/} From member reports to National Council on Compensation Insurance.

Data furnished by A. Z. Skelking, actuary, correspondence of June 8, 1939.

Exhibit III

Workmen's compensation premium rates for farm labor
(Code 0006)

| State | Effective date | Premium rate per \$100 payroll | Minimum annual premium rate |
|----------------|----------------|--------------------------------------|--|
| | | Dollars | Dollars |
| Alabama | | 1.35 | 1/ 50 |
| Arizona | | (State fund data not available here) | |
| Arkansas | | 2.79 | 1/ 52 |
| California 2/ | 1/1/41 | 3/ 3.78 | (Not available) |
| Colorado | | 2.80 | 1/ 57 |
| do. | 5/1/42 | 2.71 | 1/ 56 |
| Connecticut | | 2.43 | 1/ 51 |
| do. | 3/31/42 | 2.75 | 1/ 56 (Reported by Natl. Bur. of Casualty and Surety Underwriters) |
| Delaware | | 3/ 1.25 | 13 |
| Dist. of Col. | 2/20/42 | 2.62 | 1/ 50 |
| Florida | | 1.27 | 1/ 50 |
| Georgia | | 1.60 | 1/ 50 |
| Idaho | | 2.33 | 1/ 100 |
| Illinois | | 2.49 | 1/ 52 |
| Indiana | | 2.51 | 1/ 50 |
| Iowa | | 2.62 | 1/ 50 |
| Kansas | | 2.27 | 1/ 46 |
| Kentucky | | 1.66 | 1/ 50 |
| Louisiana | | 2.11 | 1/ 50 |
| Maine | | 2.33 | 1/ 50 |
| Maryland | | 2.13 | 1/ 50 |
| Massachusetts | 12/31/41 | 2.65 | 1/ 59 |
| Michigan | 12/31/41 | 2.61 | 1/ 50 |
| Minnesota | | 3.10 | 39 |
| Mississippi | | (No workmen's compensation law) | |
| Missouri | 12/31/41 | 2.97 | 1/ 52 |
| Montana | 3/31/42 | 3.72 | 1/ 100 |
| do. | 1/1/42 | 3.89 | 1/ 100 |
| Nebraska | | 3.34 | 1/ 65 |
| Nevada | | (Not available) | (Not available) |
| New Hampshire | | 2.10 | 1/ 50 |
| do. | 5/31/42 | 2.26 | 1/ 50 |
| New Jersey | 7/1/42 | 4.40 | 40 |
| New Mexico | | 2.34 | 1/ 100 |
| New York | | 4.89 | 85 |
| North Carolina | | 1.74 | 1/ 50 |
| North Dakota | 7/1/39 | 5.00 | (Not available) |
| Ohio | 7/1/41 | 3.50 | 31 |
| Oklahoma | | 2.27 | 1/ 50 |
| Oregon | | 3.72 | 1/ 75 |

Continued

Exhibit III

Workmen's compensation premium rates for farm labor
(Code 0006) - Continued

| State | Effective date | Premium rate per \$100 payroll | Minimum annual premium rate |
|----------------|----------------|--|-----------------------------|
| | | Dollars | Dollars |
| Pennsylvania | 7/1/42 | 2.00 | 25 |
| Rhode Island | | 2.31 | <u>1/</u> 50 |
| South Carolina | | 1.59 | <u>1/</u> 50 |
| South Dakota | 2/15/42 | 2.45 | <u>1/</u> 50 |
| Tennessee | | 1.49 | <u>1/</u> 50 |
| Texas | 7/1/40 | 2.80 | 36 |
| Utah | | 3.49 | 45 |
| Vermont | | 1.56 | <u>1/</u> 50 |
| do. | 6/1/42 | 1.67 | <u>1/</u> 50 |
| Virginia | 4/1/42 | 1.78 | 26 |
| do. | 6/1/42 | 1.80 | 26 |
| Washington | | 2.70 | <u>1/</u> 75 |
| West Virginia | | (State fund exclusive and data not available here) | |
| Wisconsin | | (Data not available here) | |
| Wyoming | | (State fund exclusive and data not available here) | |

1/ Indicates special minimum premiums.

2/ As an example of the farm classifications and premium rates per \$100 payroll, the case of California may be cited.

California: Cotton farms, \$2.15; dairy farms, \$3.35; farms not otherwise classified, \$3.78; grain, hay, rice, or alfalfa farms, \$4.38; hop farms, \$1.77; orchards, \$2.40; potato farms, \$1.72; poultry farms, \$2.45; sheep farms, \$3.83; stock farms, \$5.03; sugar beet farms, \$1.72; truck-garden or field crops hand harvested, \$1.26; and vineyards, \$1.77. (Effective January 1, 1941.)

3/ Data for farms not specially classified.

Data from National Manual of the National Council on Compensation Insurance, 45 East 17th Street, New York, New York, effective as of January 1, 1942, unless otherwise specified.

Exhibit IV

(Suggested questionnaire form for reporting farm accidents)

1. Name _____ Age _____ Sex _____
Marital status _____ Address _____
Date _____ Time of injury _____ (hour)
2. Type of accident _____
(fall, coming in contact with..., etc.)
3. Nature of injury and part of body injured _____

(cuts, bruises, broken bones, sprains, etc.)
4. Extent of injury: Minor? _____ Disabling? _____ Death? _____
5. Where injury occurred: On farm? _____ Off farm? _____
In field? _____ In barnyard? _____ In or near the home? _____
6. Circumstances leading up to the accident or contributing cause:
What was injured doing? _____
At work? _____ What kind of work? _____ Not at work? _____
7. Instrumentality of accident _____
(machinery, animal, etc.)
8. Estimate of time lost while unable to work _____ days
9. Cause of injury: Inadequate equipment? _____ Failure to work safely _____
Failure to utilize safeguards accessible or in his possession? _____
Inadequate experience? _____ Other? (specify) _____
10. How could accident have been prevented? _____

11. Expense of accident excluding time lost? _____
(amount)
By whom borne? _____
(individual, employer, insurance company)
If claim paid through insurance, what premium rate is charged? _____

(amount and period covered)

