

9-1955

## EC55-2100 Safe Corn Picker Operation

William D. Lutes

Follow this and additional works at: <http://digitalcommons.unl.edu/extensionhist>

---

Lutes, William D., "EC55-2100 Safe Corn Picker Operation" (1955). *Historical Materials from University of Nebraska-Lincoln Extension*. 3259.

<http://digitalcommons.unl.edu/extensionhist/3259>

This Article is brought to you for free and open access by the Extension at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Historical Materials from University of Nebraska-Lincoln Extension by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

85  
E7  
# 55-2100  
c.1  
SEPTEMBER 1955

E.C. 55-2100

# Safe Corn Picker Operation

By  
William D. Lutes  
Extension Safety Specialist

## ACCIDENTS DO NOT HAPPEN - THEY ARE CAUSED

Accidents have increased even faster than the number of corn pickers on our farms. Part of the increase in the number of accidents can be blamed on the greater amount of corn harvested per man and the shorter time we have to harvest the crop. Records show that hurry and haste increase the frequency of accidents.

## IT PAYS TO FOLLOW SAFETY RULES

Consider yourself a safe operator if you follow all safety rules regularly, especially the one that says, Never attempt to unclog, oil, or adjust a machine while it is in motion. If you can be classed as a safe operator, your chance of getting hurt on a corn picker in the next five years is only about one in a million.

But if you take occasional chances--such as trying to remove a loose corn-stalk from the husking rolls while the picker is running-- you are an average operator and you stand 1 chance in 25 of getting hurt by a corn picker during the next five years.

The careless operator who ignores safety rules to the extent of trying to unclog snapping rolls while the picker is running has a 50-50 chance of being seriously injured in the next five years.

EXTENSION SERVICE  
UNIVERSITY OF NEBRASKA COLLEGE OF AGRICULTURE  
AND U.S. DEPARTMENT OF AGRICULTURE  
COOPERATING  
W.V. LAMBERT, DIRECTOR



Obeying the following safety rules will classify you as a safe, careful operator:

1. Never attempt to unclog, oil, or adjust a machine while it is in motion.
2. Always shut off the picker before you leave the tractor seat.
3. Keep all safety shields in place.
4. Keep your machine in good mechanical condition and properly adjusted.
5. Pick corn only when the weather is favorable. The few extra loads you pick on a rainy day are not worth the price of an arm or leg.
6. Carry a fire extinguisher and a first-aid kit with you on the picker.
7. Wear only clothes that fit snugly and that do not have loose pockets or sleeves.
8. Change off with another operator once or twice a day, if you can.
9. Use a metal sediment bulb on your tractor instead of a glass one.
10. Keep shucks cleaned away from the exhaust manifold.

Insist that these safety rules be followed on your farm, and use your influence to induce other operators to be careful.

### PERSONAL INJURIES

In the past 7 years, 24 persons have been killed and 2,295 persons were reported to have been injured in corn harvesting accidents in Iowa. The injuries reported were such as to necessitate treatment by a doctor.

Table 1  
Number of Injuries Resulting from  
Corn Harvest Accidents

<u>Type of injury</u>	<u>1947</u>	<u>1948</u>	<u>1949</u>	<u>1950</u>	<u>1951</u>	<u>1952</u>	<u>1953</u>	<u>Total</u>	<u>Av.</u>
Deaths . . . . .	4	3	5	5	3	4	0	24	3
Amputations. . . . .	32	200	116	128	201	297	124	1098	157
Broken bones . . . . .	23	75	67	22	35	118	37	377	54
Bruises and cuts. . . . .	51	95	39	50	81	54	37	407	58
Bruises only . . . . .	74	20	11	0	63	45	13	226	32
Others . . . . .	0	41	22	28	35	43	18	187	27
Totals . . . . .	184	434	260	233	418	561	229	2319	331

Amputations are the characteristic injury of corn harvest accidents. Over 47 per cent, 1,098, of the 2,319 corn harvest accidents in Iowa from 1947 to 1953 resulted in amputations. Of the 1,705 accidents with the picker in 7 years, 64 per cent were amputation injuries. Last year 124 persons suffered the loss of 161 fingers, 19 hands and 6 arms. In 1952, the high year for corn harvesting accidents, 297 persons suffered the loss of 11 arms, 98 hands and 432 fingers. In 7 years 1,098 persons have lost 10 legs, 46 arms, 242 hands and 1,723 fingers in corn harvesting accidents in Iowa.



## PART OF MACHINE INVOLVED

It is not enough to simply know that the accident occurred during corn harvesting or that a corn picker was involved. In order to live safely in corn harvesting, a knowledge of the specific danger points is necessary.

Table 2 Number of Corn Harvest Accidents Involving Different Parts of Picker and Occurring During Different Phases of Harvest

	<u>1947</u>	<u>1948</u>	<u>1949</u>	<u>1950</u>	<u>1951</u>	<u>1952</u>	<u>1953</u>	<u>Total</u>	<u>Yr. av.</u>
Stalk ejectors . . . . .	--	--	--	--	111	148	45	304	101
Husker rolls . . . . .	--	162	73	78	101	103	32	549	91
Snapper rolls . . . . .	--	135	68	61	55	56	25	400	67
Chains and elevator. . . . .	--	5	16	11	32	36	12	112	19
Other picker. . . . .	--	42	37	0	41	69	19	208	35
All picker accidents . . . . .	134	344	192	150	340	412	133	1705	243
Tractor . . . . .	10	33	26	11	46	35	19	180	25
Elevator. . . . .	40	29	21	50	32	92	64	328	46
Wagon. . . . .	--	9	11	17	0	11	7	55	9
Silo. . . . .	--	6	10	0	0	0	6	22	3
Others . . . . .	--	13	0	5	0	11	0	29	5
Totals . . . . .	184	434	260	233	418	561	229	2319	331

Many individuals believe that most picker accidents are with the snapper rolls. However, as shown in table 1, there are more accidents with the husker rolls and more accidents with the stalk ejector rolls than with the snapper rolls. This is due to at least two factors: First, most people think the snappers are the most dangerous and that the husker and stalk ejector rolls are relatively safe; second, the stalk ejector rolls and the husker rolls actually grab objects such as gloves and loose sleeves, which get near them, quicker and more vigorously than do the snapper rolls.

The number of accidents with elevators is high. It has been increasing, particularly percentagewise. Over half of these accidents happen on the power shaft that operates the elevator. It is a general practice not to cover these shafts since they move rather slowly.

There are two major types of tractor accidents during corn harvest. One is getting caught on the uncovered power take-off while operating in the field, the other is falling of the driver or extra riders from the tractor.

## CAUSES OF ACCIDENTS

Table 3 Number of Corn Harvest Accidents by Cause

	<u>1948</u>	<u>1949</u>	<u>1950</u>	<u>1951</u>	<u>1952</u>	<u>1953</u>	<u>Totals</u>	<u>Per Cent</u>
Tiredness. . . . .	19	5	17	32	23	8	104	4.5
Hurrying . . . . .	109	78	106	153	225	78	749	32.3
Unsafe method. . . . .	243	151	160	283	370	122	1329	57.3
No safety device . . . . .	43	42	6	28	10	15	144	6.2
Lack of training . . . . .	15	10	0	0	7	15	47	2.0
Other. . . . .	5	16	0	51	71	0	143	6.2



Two causes, hurrying and using an unsafe method, were involved in 89.6 per cent of all the accidents. The most common method used was that of manually cleaning out the rolls--ejectors, huskers, or snappers--while the machine was running. Another frequent unsafe method was to use a stick or corn stalk to help clear clogging while the machine was running. Adequate training should overcome all of these causes.

### THE TIME OF DAY

The time of day seems to have a significance in the rate of corn picker accidents. The 10 o'clock hour in the forenoon and the 4 o'clock hour in the afternoon were the hours of the greatest number of accidents in Iowa for the 7-year period of their study there. The matter of fatigue and overtiredness are the possible causes and our schedule of activities should be set up to combat them. A break for lunch, time to lubricate the machine, or a change of operators is desirable.

Table 4 Number of Corn Harvest Accidents  
Each Hour of the Day, by Years

	<u>6:00</u>	<u>7:00</u>	<u>8:00</u>	<u>9:00</u>	<u>10:00</u>	<u>11:00</u>	<u>12:00</u>	<u>1:00</u>	<u>2:00</u>	<u>3:00</u>	<u>4:00</u>	<u>5:00</u>	<u>6:00</u>	<u>7:00</u>
<u>1948</u>	0	26	13	10	94*	66	0	5	34	71	96†	14	5	0
<u>1949</u>	10	12	45	34	57*	23	0	0	0	23	34†	22	0	0
<u>1950</u>	5	4	7	12	65*	6	0	8	0	50	58†	11	7	0
<u>1951</u>	0	15	16	88*	62	46	10	10	41	42†	37	36	10	5
<u>1952</u>	0	22	55	78	34	79*	22	22	11	80†	57	56	45	0
<u>1953</u>	0	0	15	23	53*	31	0	15	22	8	31†	16	15	0
Totals-	15	79	151	245	365*	251	32	60	108	274	313†	155	82	5

\* High hour in the morning.

† High hour in the afternoon.

This circular is adapted from "A Report of 2, 319 Corn Harvest Accidents"  
Iowa State College, AE 694 (Rev.)