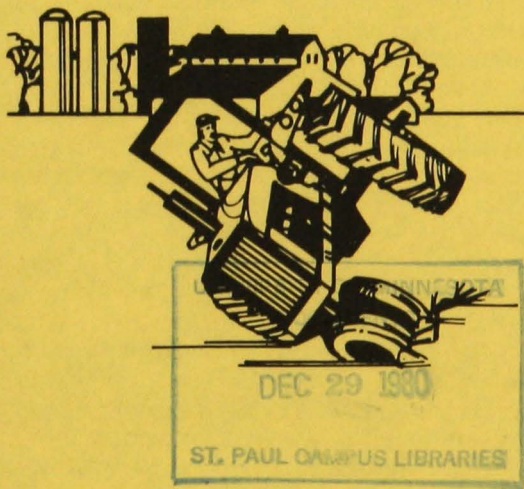


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# Farm Hazard Survey



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agricultural engineering



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# Farm Hazard Survey

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*(This survey was adapted from materials provided by the National Safety Council.)*

To reduce the accident potential on your farm, you and your workers must first identify and become familiar with the hazards that exist. This farm hazard survey will help you identify and correct those hazards.

This survey asks 124 questions about potential hazards on your farm. Answer each one yes or no. If your answer to a question is no, try to correct that hazard at the time of the survey. Sometimes immediate correction is not possible, for economical or practical reasons; thus, a space is provided where you can list a target date for correction.

This survey covers various types of hazards associated with farm machinery, agricultural chemicals, fuel storage, electricity, tools, buildings, and surrounding areas. The survey is general in nature. It is not intended to cover safe work practices or every possible physical hazard, especially those associated with specialized farming operations.

By periodically surveying your farm for hazards, eliminating and correcting them, understanding how to safely deal with them, and keeping your workers informed, you can effectively reduce the odds of an accident occurring on your farm.

For more information on farm safety, see Extension Folder 520, *FARM ACCIDENTS—Reducing the Odds*.

## FARM HAZARD SURVEY

Read each question about potential farm hazards and check (☑) **Yes** or **No**. If your answer for an item is **No**, fill in a target date for the correction of that hazard.

Question	Yes	No	If No, correct by this date
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### FARM MACHINERY

1. Are guards and shields all kept in place on power-take-off shafts, belts, chains, and other nip points on farm machinery that do not interfere with the normal production function of the machine?   \_\_\_\_\_

2. Is the power always turned-off before adjusting, servicing, or unclogging machinery?   \_\_\_\_\_

3. Do farm machinery operators keep young children and others away from farm machinery, whether moving or stationary?   \_\_\_\_\_

4. Is it a standard rule on your farm not to allow extra riders on farm equipment?   \_\_\_\_\_

5. When operating a tractor, particularly on hill-sides, are the wheels set in the widest practical position to increase stability and reduce the possibility of tipping?   \_\_\_\_\_

	Yes	No	Correct by
6. Are drawbar loads always hitched to a drawbar set in the designated towing position rather than to the tractor's axle, frame, or raised three-point hitch, which would raise the center of gravity and could cause the tractor to tip?	<input type="checkbox"/>	<input type="checkbox"/>	_____
7. Are the manufacturers' recommendations for adding front-end weights followed when using rear-mounted implements on a tractor?	<input type="checkbox"/>	<input type="checkbox"/>	_____
8. Are seat belts worn with tractors equipped with rollover protective structures?	<input type="checkbox"/>	<input type="checkbox"/>	_____
9. Are tractors and self-propelled machines equipped with a 5-pound, UL-listed, ABC dry chemical fire extinguisher?	<input type="checkbox"/>	<input type="checkbox"/>	_____
10. To prevent carbon monoxide poisoning, are doors and windows always open when starting or running a tractor, truck, or other internal combustion engine in buildings?	<input type="checkbox"/>	<input type="checkbox"/>	_____
11. Is there a first-aid kit mounted on each tractor and self-propelled machine?	<input type="checkbox"/>	<input type="checkbox"/>	_____
12. Are slow-moving vehicle (SMV) emblems mounted on farm equip-			

	Yes	No	Correct by
ment transported on public roads?	<input type="checkbox"/>	<input type="checkbox"/>	_____
13. Are all SMV emblems clean, and have those that are faded or damaged been replaced?	<input type="checkbox"/>	<input type="checkbox"/>	_____
14. Do all lights on tractors work, and are they kept clean?	<input type="checkbox"/>	<input type="checkbox"/>	_____
15. Are all reflectors clean, and have damaged ones been replaced?	<input type="checkbox"/>	<input type="checkbox"/>	_____
16. Have all equipment operators received training either by experienced farm machinery operators or through an agricultural education program such as vo-ag or 4-H?	<input type="checkbox"/>	<input type="checkbox"/>	_____
17. Do all farm machinery operators avoid wearing torn or ragged clothing when working around machinery?	<input type="checkbox"/>	<input type="checkbox"/>	_____
18. Are brakes on farm tractors and other self-propelled equipment periodically adjusted?	<input type="checkbox"/>	<input type="checkbox"/>	_____
19. Are all farm equipment instruction manuals readily available to the operator?	<input type="checkbox"/>	<input type="checkbox"/>	_____
20. Do all farm equipment operators know how to stabilize a piece of farm equipment by using jacks and blocks before repairing or maintaining the equipment?	<input type="checkbox"/>	<input type="checkbox"/>	_____

- |   | Yes                      | No                       | Correct by |
|---|--------------------------|--------------------------|------------|
| 21. Are all tires on farm equipment properly inflated?  | <input type="checkbox"/> | <input type="checkbox"/> | _____      |
| 22. Are hitch pins with locking devices to keep them from drawing out available for all trailing farm equipment.  | <input type="checkbox"/> | <input type="checkbox"/> | _____      |
| 23. Are safety chains provided on trailing equipment and used on public roads?  | <input type="checkbox"/> | <input type="checkbox"/> | _____      |
| 24. Are all hydraulic hoses in good condition?  | <input type="checkbox"/> | <input type="checkbox"/> | _____      |
| 25. Are all steps and ladders on farm equipment and platforms kept clean of mud, snow, and other material, to prevent farm equipment operators from slipping and falling? | <input type="checkbox"/> | <input type="checkbox"/> | _____      |

### **AGRICULTURAL CHEMICALS**

- |   |                          |                          |       |
|---|--------------------------|--------------------------|-------|
| 26. Are all agricultural chemicals stored in a room or building which can be locked and cannot be entered by children or animals? | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| 27. Is the chemical storage location isolated away from animal feed, seed, etc.?  | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| 28. Is a sign posted next to chemical storage areas to warn others of the hazard inside?  | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| 29. Are chemicals stored in their original containers with labels intact, and   |                          |                          |       |

	Yes	No	Correct by
none stored in unmarked containers, particularly empty food and drink containers?	<input type="checkbox"/>	<input type="checkbox"/>	_____
30. Are empty chemical containers disposed of promptly and safely?	<input type="checkbox"/>	<input type="checkbox"/>	_____
31. Is the chemical mixing area outside or in an open, well-ventilated area of the building?	<input type="checkbox"/>	<input type="checkbox"/>	_____
32. Is the chemical storage area amply ventilated?	<input type="checkbox"/>	<input type="checkbox"/>	_____
33. If a number of chemicals are stored in an area, is the storage place designed so that the chemicals can be kept separate from each other?	<input type="checkbox"/>	<input type="checkbox"/>	_____
34. Is a supply of personal protective equipment available for farm workers applying or handling farm chemicals? This includes rubber and chemical gloves, chemical goggles, chemical cartridge respirators, chemical aprons, and a hard-shell hat.	<input type="checkbox"/>	<input type="checkbox"/>	_____
35. When applying anhydrous ammonia, is there at least a 5-gallon supply of clean water available on the applicator, tractor, and the nurse tank?	<input type="checkbox"/>	<input type="checkbox"/>	_____

### **FUEL STORAGE**

36. Are farm fuels stored underground or in elevat-

- |  | Yes                      | No                       | Correct by |
|--|--------------------------|--------------------------|------------|
| ed tanks at least 40 feet from the nearest building?   | <input type="checkbox"/> | <input type="checkbox"/> | _____      |
| 37. Are tank and pumps for underground fuel storage tanks located where they will not be struck by vehicles and machinery during routine movement around the farmyard? | <input type="checkbox"/> | <input type="checkbox"/> | _____      |
| 38. Is there a 5-pound, UL-listed, ABC dry chemical fire extinguisher readily available in any fuel storage area?  | <input type="checkbox"/> | <input type="checkbox"/> | _____      |
| 39. Are fuel storage hoses, nozzles, pumps, etc. in good condition and vents clean and free of dirt?   | <input type="checkbox"/> | <input type="checkbox"/> | _____      |
| 40. Are LP gas storage tanks located at least 50 feet from the nearest building, where they won't be struck by vehicles and machinery during routine movements?        | <input type="checkbox"/> | <input type="checkbox"/> | _____      |
| 41. Are LP system regulators and gauges protected from weather and dirt?   | <input type="checkbox"/> | <input type="checkbox"/> | _____      |
| 42. Are small quantities of gasoline, kerosene, or diesel fuel stored in UL-approved safety containers?  | <input type="checkbox"/> | <input type="checkbox"/> | _____      |
| 43. Is the area around fuel tanks or pumps free of weeds and trash or  |                          |                          |            |



	Yes	No	Correct by
other materials that could cause a fire?	<input type="checkbox"/>	<input type="checkbox"/>	_____
44. Are "No Smoking" signs posted in fuel storage and handling areas?	<input type="checkbox"/>	<input type="checkbox"/>	_____
45. Are all flammable products such as paint, solvents, and other petroleum products kept in original containers and stored away from heat sources?	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>ELECTRICITY</b>			
46. Is all wiring in farm buildings and around the farmstead in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	_____
47. Does the electrical system have ample capacity to handle all loads?	<input type="checkbox"/>	<input type="checkbox"/>	_____
48. Are all electrical circuits equipped with the proper size fuses or circuit breakers?	<input type="checkbox"/>	<input type="checkbox"/>	_____
49. Are all electrical power tools in good operating condition and grounded when used, or the double-insulated type?	<input type="checkbox"/>	<input type="checkbox"/>	_____
50. Are power cords, plugs, and switches free of defects?	<input type="checkbox"/>	<input type="checkbox"/>	_____
51. Are all electrical appliances and power tools used around the farm UL-listed?	<input type="checkbox"/>	<input type="checkbox"/>	_____
52. Are overhead wires in the farmstead yard area			

and those located near field entrances high enough to clear machinery with room beneath them?

\_\_\_\_\_

53. Are all light bulbs protected from breakage in storage and livestock buildings?

\_\_\_\_\_

54. Are all electrical outlets used in buildings where there is a potential for high moisture content or where water is periodically sprayed, moisture-proof outlets?

\_\_\_\_\_

55. To prevent electrical shock in damp work areas such as milking parlors, milkhouses, and animal confinements, are ground fault circuit interrupters installed or used?

\_\_\_\_\_

56. Is the main power switch that controls electrically operated farm equipment equipped with a lockout device that can be locked to prevent anyone from accidentally starting up equipment while service or maintenance is being performed by another person working on the equipment?

\_\_\_\_\_

57. Are wooden ladders either not painted or coated with a clear preservative so cracks or faults can be seen? (Lad-

	Yes	No	Correct by
ders never should be painted.)	<input type="checkbox"/>	<input type="checkbox"/>	_____
58. Are ladders purchased from reliable dealers and of good quality, preferably with an Underwriters Laboratories seal?	<input type="checkbox"/>	<input type="checkbox"/>	_____
59. Are newer ladders labeled as meeting American National Standards Institute Standard "A14.1" or "A14.2"?	<input type="checkbox"/>	<input type="checkbox"/>	_____
60. Have loose, worn, or damaged rungs or side-rails on ladders been repaired or replaced?	<input type="checkbox"/>	<input type="checkbox"/>	_____
61. Are ladders stored out of the way and secured so they cannot fall?	<input type="checkbox"/>	<input type="checkbox"/>	_____
62. Are permanent ladders in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	_____

## **BUILDINGS**

### **General**

63. Are buildings free of unnecessary accumulations of trash, litter, junk, and other things which could start or feed a fire, cause falls, or get in your way when working?	<input type="checkbox"/>	<input type="checkbox"/>	_____
64. Are stairs in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	_____
65. Do stairs have hand-rails?	<input type="checkbox"/>	<input type="checkbox"/>	_____
66. Are stairs clear of objects and of substances that would make them			

	Yes	No	Correct by
slippery and cause falls?	<input type="checkbox"/>	<input type="checkbox"/>	_____
67. Are there rotten or broken lower boards or defects in concrete floors which need repairing?	<input type="checkbox"/>	<input type="checkbox"/>	_____
68. Are openings through floors protected with guard rails?	<input type="checkbox"/>	<input type="checkbox"/>	_____
69. Are platforms or working surfaces over 30 inches above the ground equipped with guard rails?	<input type="checkbox"/>	<input type="checkbox"/>	_____
70. Have nails been removed from loose boards before stacking or storing them?	<input type="checkbox"/>	<input type="checkbox"/>	_____
71. Are materials and supplies stored so they cannot fall on someone or block passageways when working around them?	<input type="checkbox"/>	<input type="checkbox"/>	_____
72. Are all belts, chains, and pulleys guarded on power equipment in buildings?	<input type="checkbox"/>	<input type="checkbox"/>	_____
73. Are low ceilings, beams, low doors, or passageways marked with warning signs, fluorescent materials, or streamers, to prevent anyone from bumping his/her head?	<input type="checkbox"/>	<input type="checkbox"/>	_____
74. Are buckets, tools, and other materials hung where a person's head cannot strike them?	<input type="checkbox"/>	<input type="checkbox"/>	_____
75. Are doors and gates			

Yes No Correct by

to hazardous areas such as silo entrances, manure storage areas, chemical storage, and animal quarters kept closed and secured to keep children and visitors out?

\_\_\_\_\_

76. Is there at least one 5-pound, UL-listed, dry chemical fire extinguisher mounted near the entrance to each building on the farm?

\_\_\_\_\_

77. Are "No Smoking" signs posted in buildings where combustible materials are located?

\_\_\_\_\_

78. Are lightning rods and conductors properly grounded and in good condition on buildings equipped with lightning protection systems?

\_\_\_\_\_

### **Animal Facilities**

79. Are pens, gates, shoots, and slot fences sturdy and in good condition?

\_\_\_\_\_

80. Are belts, pulleys, and chains on feed grinding and handling equipment guarded?

\_\_\_\_\_

81. Are loading troughs on augers, elevators, and conveyors covered with a guard or grating?

\_\_\_\_\_

82. Are floors and other walking surfaces kept clean and free of manure,

	Yes	No	Correct by
snow, mud, etc., to prevent falls?	<input type="checkbox"/>	<input type="checkbox"/>	_____
83. Are extremely slippery areas such as milking parlor steps and walkways roughened to prevent slips and falls?	<input type="checkbox"/>	<input type="checkbox"/>	_____
84. Are ventilation fans and vents operative and in good condition in confinement housing?	<input type="checkbox"/>	<input type="checkbox"/>	_____
85. Are heat lamps for farrowing and brooding well-supported and at least 18 inches away from combustible materials?	<input type="checkbox"/>	<input type="checkbox"/>	_____
86. Are sturdy grates or covers placed over manure pit openings?	<input type="checkbox"/>	<input type="checkbox"/>	_____
87. Are manure lagoons posted with warning signs and fenced to keep children and animals out?	<input type="checkbox"/>	<input type="checkbox"/>	_____
88. Are stock watering tanks fenced to prevent small children from entering the tanks and drowning?	<input type="checkbox"/>	<input type="checkbox"/>	_____
89. Are electrical stock water heaters grounded?	<input type="checkbox"/>	<input type="checkbox"/>	_____
90. Are heaters installed away from combustible materials and properly vented to prevent leakage of carbon monoxide into the atmosphere?	<input type="checkbox"/>	<input type="checkbox"/>	_____
91. If heating units are LP gas or oil-fired, are tanks installed with solid sup-			

	Yes	No	Correct by
ports and are the lines, valves, etc., protected to avoid damage to them?	<input type="checkbox"/>	<input type="checkbox"/>	_____

### **Grain and Silage Storage Structures**

92. Are entrances to grain and silage storage areas kept closed, to keep children out?	<input type="checkbox"/>	<input type="checkbox"/>	_____
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93. Are rotating augers, belts, pulleys, and chains on loading and unloading machinery guarded?	<input type="checkbox"/>	<input type="checkbox"/>	_____
---	--------------------------	--------------------------	-------

94. Is there a safety cage on silo or bin ladders 20-or-more feet high?	<input type="checkbox"/>	<input type="checkbox"/>	_____
---	--------------------------	--------------------------	-------

95. Do grain bins have both outside and inside permanent ladders?	<input type="checkbox"/>	<input type="checkbox"/>	_____
---	--------------------------	--------------------------	-------

96. Can the power be locked-out , so the unloading mechanism in a grain or silage structure cannot be started when someone is working in the bin?	<input type="checkbox"/>	<input type="checkbox"/>	_____
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97. Are warnings posted at machinery locations where operation may begin automatically and could trap a worker unexpectedly?	<input type="checkbox"/>	<input type="checkbox"/>	_____
--	--------------------------	--------------------------	-------

### **Machinery Storage Buildings**

98. Is the floor surface firm and level?	<input type="checkbox"/>	<input type="checkbox"/>	_____
--	--------------------------	--------------------------	-------

99. Is machinery parked to permit ample walking space between units?	<input type="checkbox"/>	<input type="checkbox"/>	_____
--	--------------------------	--------------------------	-------

100. Do doors open easi-			
--------------------------	--	--	--

	Yes	No	Correct by
ly and smoothly, and can they be locked to keep out intruders?	<input type="checkbox"/>	<input type="checkbox"/>	_____

## **HAND AND POWER TOOLS**

101. Are all stationary power tools grounded?	<input type="checkbox"/>	<input type="checkbox"/>	_____
---	--------------------------	--------------------------	-------

102. Are portable power tools either double-insulated or three-wire grounded type?	<input type="checkbox"/>	<input type="checkbox"/>	_____
--	--------------------------	--------------------------	-------

103. Are all portable power tools disconnected when not in use?	<input type="checkbox"/>	<input type="checkbox"/>	_____
---	--------------------------	--------------------------	-------

104. Are stationary tools such as grinders and saws properly shielded, with shields always in place when in use?	<input type="checkbox"/>	<input type="checkbox"/>	_____
--	--------------------------	--------------------------	-------

105. Are cutting tools such as saws, axes, and knives kept sharp and stored so they cannot fall on someone?	<input type="checkbox"/>	<input type="checkbox"/>	_____
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106. Do any axes, hammers, picks, or other hand tools have damaged or loose handles? (Handles should fit tight and be free from splinters.)	<input type="checkbox"/>	<input type="checkbox"/>	_____
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107. Do tools such as wedges, chisels, and sledgehammers have mushroom heads that need to be dressed and ground off?	<input type="checkbox"/>	<input type="checkbox"/>	_____
--	--------------------------	--------------------------	-------

108. Are tools stored in a specific location, out of the way of the work area when not in use?	<input type="checkbox"/>	<input type="checkbox"/>	_____
--	--------------------------	--------------------------	-------



- |  | Yes                      | No                       | Correct by |
|--|--------------------------|--------------------------|------------|
| 109. Is the welding area well-ventilated?                          | <input type="checkbox"/> | <input type="checkbox"/> | _____      |
| 110. Are work areas well-lighted, with extra light for bench work? | <input type="checkbox"/> | <input type="checkbox"/> | _____      |

### **LANES AND DRIVES**

- |  |                          |                          |       |
|--|--------------------------|--------------------------|-------|
| 111. Are drives serving farmsteads firm, with no deep ruts or bumps?   | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| 112. Are corners leading into driveways clear and not obstructed by tall crops?  | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| 113. Are gates at field entrances set back far enough so that equipment is completely off the road when you stop to open the gate? | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| 114. Have trees been trimmed back or removed along lanes, to avoid interference with movement of machinery?                        | <input type="checkbox"/> | <input type="checkbox"/> | _____ |

### **FIELD AND WOOD LOTS**

- |   |                          |                          |       |
|---|--------------------------|--------------------------|-------|
| 115. Are ponds fenced-off to prevent children from drowning?                  | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| 116. Have outlet retaining walls and other abrupt drops been marked?          | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| 117. Are drive lines on irrigation pumps and other powered equipment guarded? | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| 118. Is automatic equipment such as that on some irrigation systems           |                          |                          |       |

	Yes	No	Correct by
posted, to warn of unexpected starts when near the equipment?	<input type="checkbox"/>	<input type="checkbox"/>	_____
119. Have obstructions in fields, such as large rocks, ruts, and broken tile drains been marked, to warn farm machinery operators?	<input type="checkbox"/>	<input type="checkbox"/>	_____
120. Are extremely steep slopes not farmed, due to the extreme danger of tractor turnovers?	<input type="checkbox"/>	<input type="checkbox"/>	_____
121. Are low branches of trees trimmed where machinery must pass under them?	<input type="checkbox"/>	<input type="checkbox"/>	_____
122. Are farm machinery tipover hazards, such as stumps and rocks, removed from fields?	<input type="checkbox"/>	<input type="checkbox"/>	_____
123. Are holes filled or flagged?	<input type="checkbox"/>	<input type="checkbox"/>	_____
124. Are large, movable obstacles flagged to warn farm machinery operators?	<input type="checkbox"/>	<input type="checkbox"/>	_____

Other hazards noted: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Number of hazards found  
 (Number of questions answered **No**) \_\_\_\_\_  
 Number of hazards corrected \_\_\_\_\_  
 Serious hazards that need to be corrected immediately \_\_\_\_\_  
 \_\_\_\_\_

Name of Surveyor \_\_\_\_\_  
 Date \_\_\_\_\_

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