

# The Kayles' Difficult Decisions

## *Problem Book*



**DEPARTMENT OF HEALTH AND HUMAN SERVICES**  
Centers for Disease Control and Prevention  
National Institute for Occupational Safety and Health





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# The Kayles' Difficult Decisions

## Problem Book

UNIVERSITY OF KENTUCKY, LEXINGTON

*and*

DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Centers for Disease Control and Prevention  
National Institute for Occupational Safety and Health

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*The Kayles' Difficult Decisions* tells the story of a fictional farm family. Resemblance to any actual person or farm is purely coincidental.

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## Dedication

We dedicate this exercise to the farm families in Kentucky who were willing to share their stories with us and to all farm families throughout the United States.

We also dedicate this exercise to the memory of our good friend and colleague,

Professor Pamela S. Kidd, R.N., Ph.D., (1957–2002)

She honored the nursing profession in both clinical practice and injury prevention by always respecting the needs of her patients and clients. Whether her clients were farmers, construction workers, drivers on our highways, staff or student nurses, or patients in the Emergency Department, their needs always came first. Pam saved lives, prevented injuries, and improved the quality of life for many. She worked every day to make a dangerous world a better and safer place for all of us. It was our privilege and good fortune to be able to collaborate with her, learn from her, and to call her a friend.



# Content Overview

## The Kayles' Story

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## Foreword

A farm is one of the most hazardous places to live and work in the United States—and farming is one of the most hazardous jobs, along with mining, logging, fishing, construction, and transportation. This simulation exercise tells the story of these hazards from the point of view of a single family, the Kayles, living on a farm in central Kentucky. The exercise also provides a glimpse of life on a typical family farm and examples of the dilemmas they face daily.

This story is a work of fiction: there is no Kayles family living in central Kentucky. However, we based this story on the experiences and lives of hundreds of farmers and their families. Their experiences include severe, disabling injuries and deaths. Some of the deaths were related to us by surviving family members.

This exercise was developed for use by adolescent and adult farmers, family members, and farm workers to help raise awareness and understanding about the permanent and sweeping consequences that may arise from being in a hurry or taking a short cut in the day-to-day farming operation. By focusing on a single farm family, we hope to make the farm injury and death statistics personally meaningful to exercise participants.

The researchers at the University of Kentucky and the National Institute for Occupational Safety and Health are deeply grateful to the farm families of Kentucky who were willing to share their stories with us. We dedicate this exercise to them and to all farm families throughout the United States.

Christine M. Branche, Ph.D.  
Acting Director,  
National Institute for Occupational  
Safety and Health  
Centers for Disease Control and Prevention

## Key Financial Terms

A number of financial terms are used throughout this exercise. A list of these terms and their definitions are provided below. As you work through this exercise, please refer to this page when you need to know how these terms are being used.

**Assets**—Any resources of material value or usefulness controlled by the farm business (such as crops, livestock, equipment, etc.). **Current assets** include all resources that are cash or that will be converted into cash within 1 year. **Noncurrent assets** are resources with a life of greater than 1 year.

**Balance sheet**—A financial statement with a list of assets, liabilities, and owner's equity at a specific point in time (usually the end of an accounting period). Also called a *net worth statement*, *financial statement*, or *statement of financial condition*.

**Cash flow**—All cash inflows and outflows for a period of time, usually 1 year. Inflows include all farm and non-farm receipts. Outflows include farm operating expenses, capital outlays, family living expenses, and tax payments.

**Debt/asset ratio**—A measure of solvency determined by dividing total liabilities by total assets.

**Enterprise**—A process or activity that produces a single output (such as corn silage, tobacco, cow/calf).

**Gross farm income**—Total farm income before expenses are deducted.

**Liabilities**—Claims or debts against the farm business. **Current liabilities** are those due within 1 year. **Noncurrent liabilities** are debts with terms of greater than 1 year.

**Line of credit**—A prearranged amount of money the farm business can borrow to meet short-term cash flow deficits. A line of credit is analogous to a credit card with a credit limit.

**Net farm income**—Total farm income after subtracting operating expenses, depreciation, interest paid on loans, and losses on the sale of capital assets. Net farm income includes the return on the investment of the farm's capital resources and the unpaid labor of the farm family members.

**Net worth**—Total assets minus total liabilities. Also called owner's equity or equity.

**Tobacco base**—A federally controlled production quota assigned to individual farms and based on historical production patterns. Quotas may be leased to or from farms within Kentucky counties.



## Purpose

This simulation exercise presents the story of a fictional but typical family farm in Kentucky. Participants in this exercise make decisions regarding the farm operations over a 3-year period. The purpose is to examine the underlying connections between productivity, workload, safe work practices, and risks for injury in the context of the entire farm operation. This story is based on focus-group interviews with 180 Kentucky farm family members and on real-life cases similar to the Kayles' story. The exercise also includes information about farm economics, production, health, and injuries that has been compiled by University of Kentucky researchers. We hope the story is meaningful for you. Your comments and criticisms will help us to improve the activity.

## Instructions

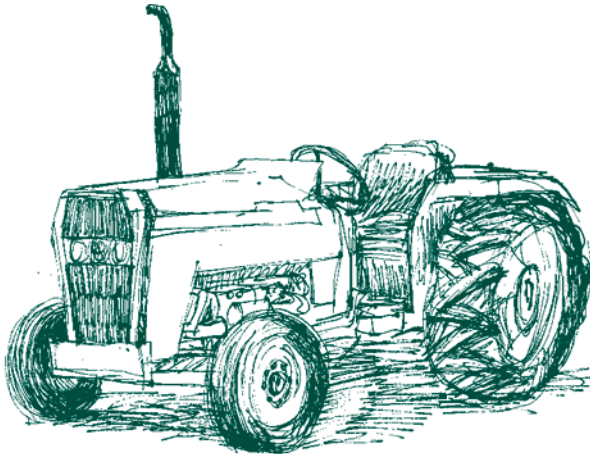
Get together with three or four of your friends. Each of you should have a problem book, an answer sheet, and a pencil. Read the background information about the Kayles' farm on the next four pages of this problem book. Then turn to the first issue area: Issue A. Examine the questions and statements in Issue A. Discuss each question or statement with your friends. Then, on the separate answer sheet, please check whether you **agree** or **disagree** with each question.

After everyone in your small group has completed Issue A, look at the *Answer Feedback Book* for that issue (one person in your small group should have a copy of the *Answer Feedback Book*; he or she is not to look at the answer key until all of you have completed your answer sheets for that issue). Compare your answers with those in the *Answer Feedback Book* and discuss any differences. Your answers provide an important part of the evaluation of this exercise, so please don't change them. When you have reviewed the answers within an issue area, turn to the next issue in the problem book and continue the story.

Each issue area has 4 to 8 questions or statements for you to examine. Please answer *all* of the questions within each issue. Complete each issue area one at a time. It's okay to look back at earlier issues, but **please don't jump ahead**. When you have finished the entire simulation exercise, you will learn how to score your answers. Also, you will be given a set of discussion notes containing additional information and references. When you finish your discussions, please complete the evaluation questions for the exercise and return your answer sheet to your instructor.

## Background

The year is 1992. Eugene and Ellen Kayles own a 125-acre tobacco and beef-cattle farm in central Kentucky. They have 60 brood cows on 91 acres of pasture, 6 acres of tobacco, 10 acres of corn silage, and 18 acres of improved hay. Their farm map is shown in Figure 1. The story begins in November 1992.



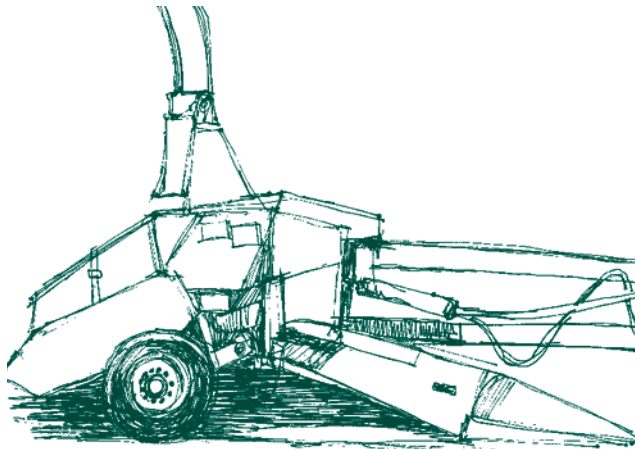
### Topography

The cropland is fairly flat with less than 6% slope. The pasture varies from gently rolling to steep, with a few sinkholes and ravines. New small sink holes sometimes develop in the spring. (See **Figure 1.**)

### Equipment

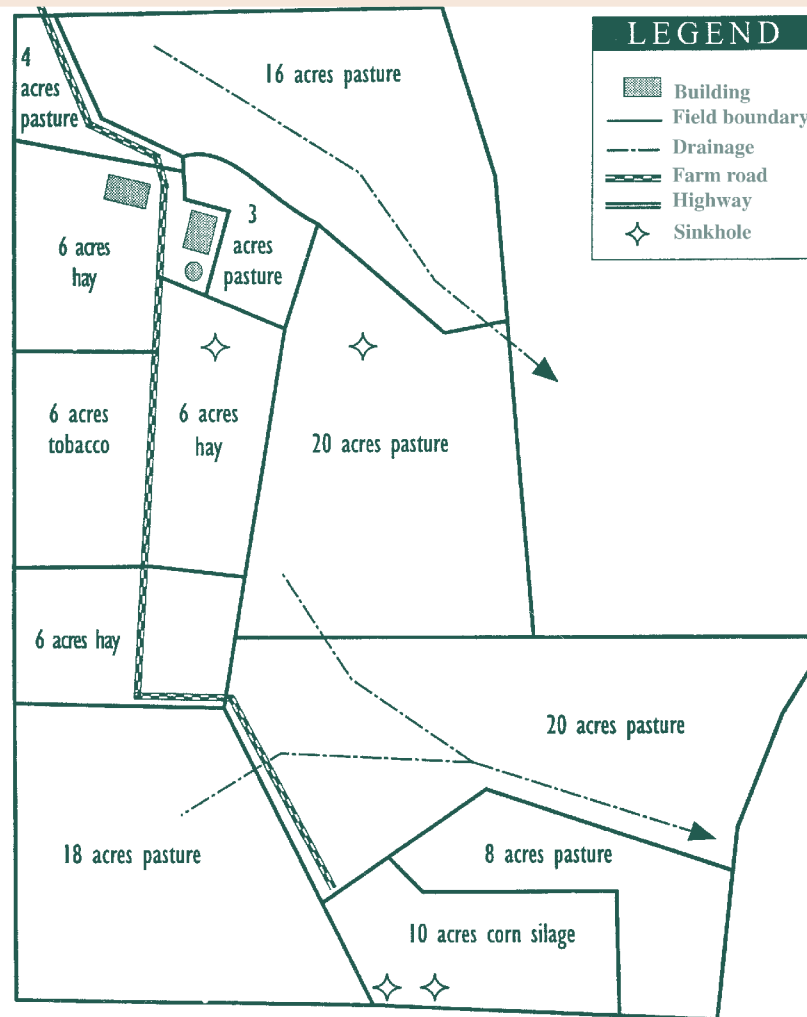
The Kayles have

- a 75-horsepower, 1985 diesel tractor (excellent condition) with a rollover protective structure (ROPS), also referred to as a roll bar.
- a 60-horsepower, 1979 diesel tractor (fair condition, no ROPS)
- a 35-horsepower, 1968 gasoline utility tractor (no ROPS, worn tires, poor brakes, bad battery)
- a one-row silage chopper (old but in good mechanical condition)
- a silo auger and blower (old but in good mechanical condition)
- two self-unloading silage wagons (good condition)
- standard tillage and hay-harvesting equipment (fair condition)
- a 1989 pickup truck with a portable cellular telephone



### Labor Force

- Eugene Kayles, age 39, works full-time on the farm.
- Ellen Kayles, his wife, age 37, teaches school and farms part-time.
- Billy Kayles, their 13-year old son, is in junior high school and farms part-time.
- Eugene and Ellen hire part-time labor during peak times.
- George Kayles, Eugene's younger brother, helps out sometimes. George has a full-time city job, a wife, and two children. He lives 8 miles from the Kayles' farm.
- Ben Dillon is the Kayles' next-door neighbor.



**Figure 1. Kayles farm map.**

*Please turn the page and continue →*

## Ben's Farm: An Opportunity or a Problem?

The year is 1992. It is mid November. Eugene, Ellen, and Billy are eating a late Saturday-night supper after working hard all day cutting firewood and fixing fences.

Eugene says the next-door neighbor, Ben Dillon, stopped by. Ben is thinking about selling his farm and retiring. He wants to know if the Kayles are interested in buying his farm before he puts it on the market.

The Kayles talk about this. They have been running their farm for 15 years. They have added cattle and kept the tobacco going and earned enough to break even on a cash-flow basis. Their net farm income last year was \$10,363 (see **Table 1**). Ellen's teaching job provides an annual income of \$26,000 and family medical coverage (80% for the first \$100,000 per person). The annual mortgage payment is \$10,955. The annual machinery loan payment is \$5,142. (Total payments = \$16,955 annually.) To improve cash flow, the Kayles have been thinking about expanding their operation. They have had a few minor mishaps but no serious illness or injury, and all three are strong and healthy. The hours of labor required for the Kayles' current farm and the hours of labor available from the family are described in **Figure 2**.



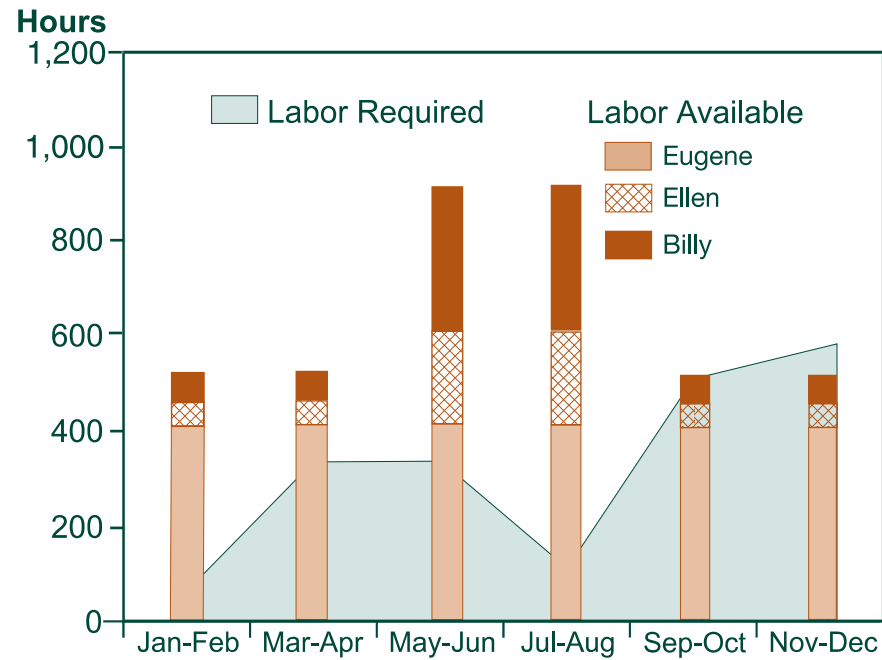
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Billy wants to become a farmer and he thinks they should buy the extra land. Eugene and Ellen want to think about it for a while.

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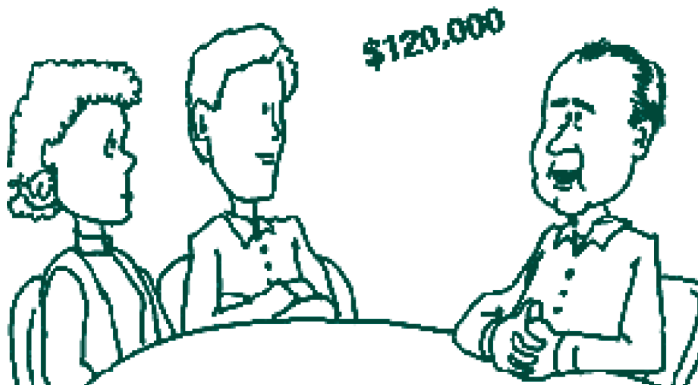
**Table 1. Kayles farm financial situation before purchase of the Dillon farm.**

Item	Amount
<b>Solvency measures:</b>	
Total assets	\$430,500
Total liabilities	62,000
Net worth	368,500
Debt/Asset Ratio	0.14
Line of credit	\$50,000
Credit available	38,000
<b>Income measures:</b>	
Gross farm income	\$60,727
Net farm income	10,363
Off-farm Income	26,000
Principal payments	11,249
Net cash flow	1,394



**Figure 2. Hours of labor required and available for farm operation before purchase of Dillon farm.**

*Please turn the page and answer the first questions →*



## Issue A—Considering the Purchase

It is 2 months later (mid-January of the next year). Ben Dillon stops by. He tells the Kayles that he has decided to retire and sell his farm, except for two acres and the house. His 122 acres is a lot like the Kayles' farm in cropland, terrain, and production, but his buildings and fences are more run down. He has a 9,000-lb tobacco base. Ben, Eugene, and Ellen talk and establish a price of \$1,000 an acre or \$120,000. Ben says they should let him know one way or the other in a couple of months. (See the map of the Dillon farm in **Figure 3**.)

That night at the dinner table, the Kayles talk about buying Ben's farm. If they buy the farm, what are some things that might happen? (*On the answer sheet, please check whether you AGREE or DISAGREE with each of the following statements.*)

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If the Kayles buy the farm, what are some things that might happen?

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1. Their net farm income might increase.
2. They might have too little cash to maintain and replace structures and equipment.
3. They might have to take a second mortgage on their first farm.
4. Eugene might have to take an off-farm job to earn extra money.
5. They might acquire enough land to bring Billy into farming when he is an adult.
6. Net farm income might decrease.
7. Profitability and cash flow will double or nearly double.
8. They might not have enough hours in the day to get the work done.

*When you have made your selections, check the Answer Feedback Book and compare it with your answers for Issue A.*



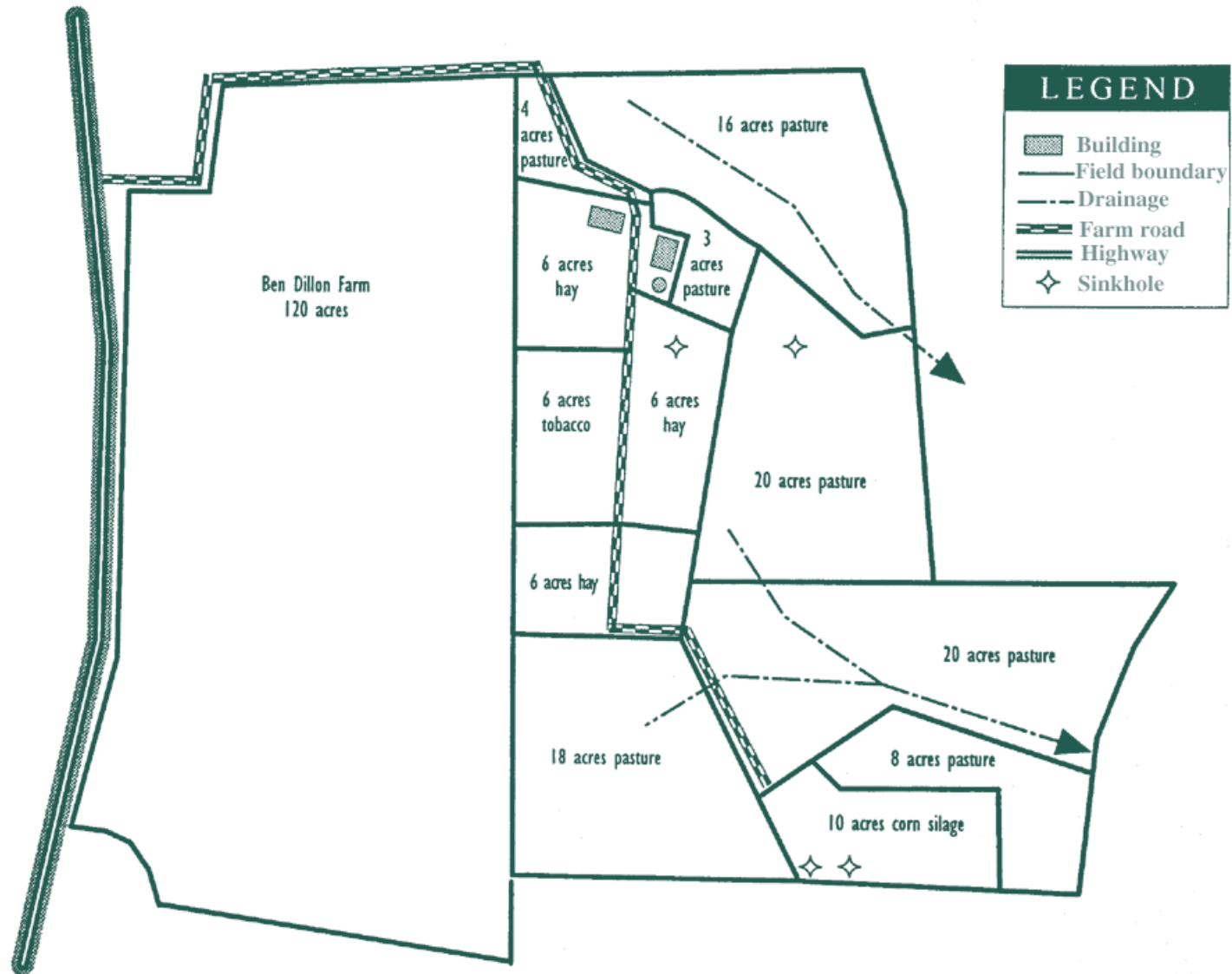


Figure 3. Dillon farm map.



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What are some things the Kayles should do to deal with the larger farm they may soon own?

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## Issue B—Finding Extra Help

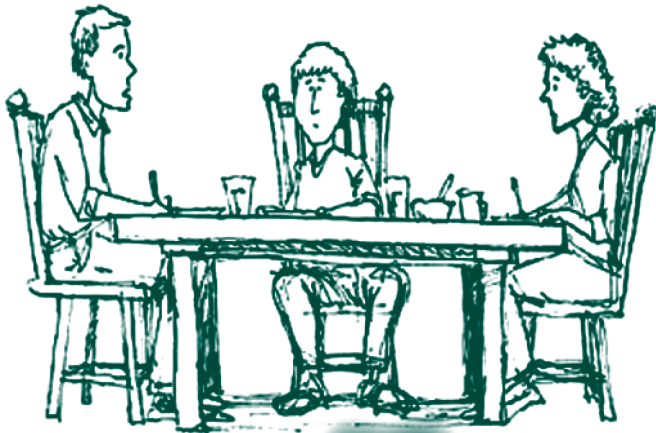
It is now November. Ben stops by and tells Eugene he needs to know whether the Kayles want to buy his farm. If not, he will put it on the market. Later that day, Eugene, Ellen, and Billy decide to buy Ben's farm. They have been checking and know it is a good price for its location. They have already made arrangements for the financing.

What are some things the Kayles should do to deal with the larger farm they may soon own? *(On the answer sheet, please check whether you agree or disagree with each of the following statements.)*

9. Ellen should quit her teaching job and work full-time on the farm.
10. The Kayles should hire a full-time farm worker.
11. They should hire more part-time labor during peak times.
12. Eugene should hire someone for spraying, planting, and harvesting jobs.
13. Eugene should ask his brother, George, to quit his city job and become a full-time partner in the farming operation.

*When you have made your selections, check the Answer Feedback Book and compare it with your answers for Issue B.*

## The Kayle's Difficult Decisions

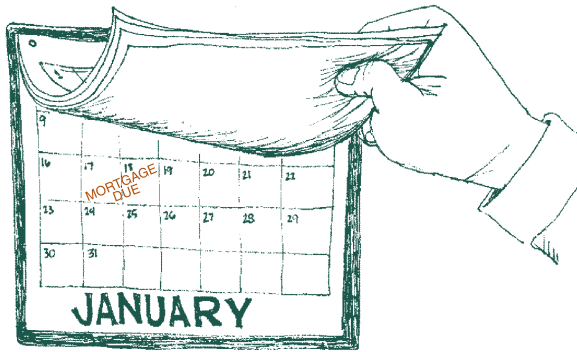


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Later that day, Eugene, Ellen, and Billy decide to buy Ben's farm.

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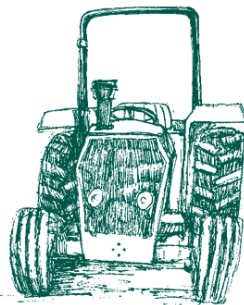


## Issue C—Options for Managing an Expanded Farm

It is 3 months later. The Kayles have purchased the Dillon farm, fixed the fences, and made some other repairs and improvements. They are making crop and livestock plans for the year. Anticipating the larger mortgage payment due the following January, the Kayles are worried about cash flow and profits (see **Table 2**). The hours of labor required for the combined Kayles and Dillon farms and the hours of labor available from the family are described in **Figure 4**.

What are some good options for managing an expanded farm? (*On the answer sheet, please check whether you AGREE or DISAGREE with each of the following statements.*)

14. The Kayles should keep their good heifers to raise as brood cows.
15. They should purchase an additional 10 to 25 brood cows.
16. Eugene should lease some of the new pasture land to another farmer for grazing at the going rate of \$35 an acre per season.
17. The family should add a new crop—an alternative enterprise such as bell peppers, sweet corn, staked tomatoes, etc.
18. They should buy a newer and larger tractor equipped with a roll bar (ROPS).



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What are some good options for managing an expanded farm?

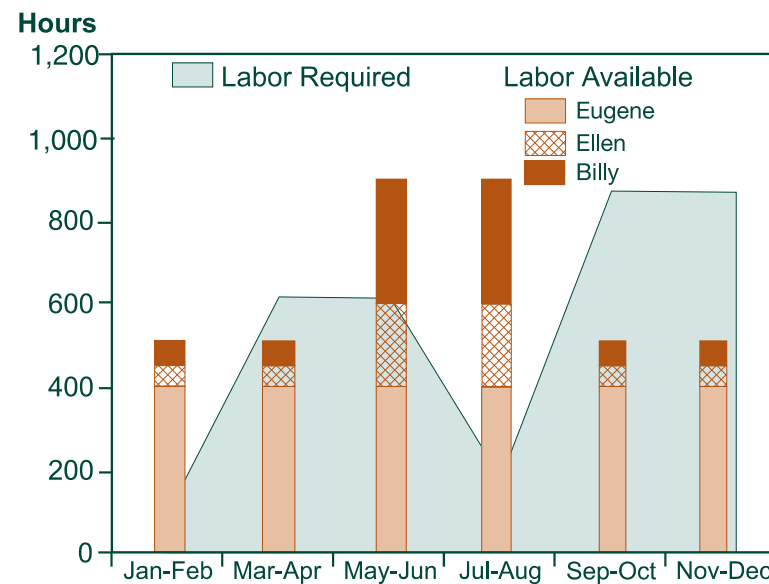
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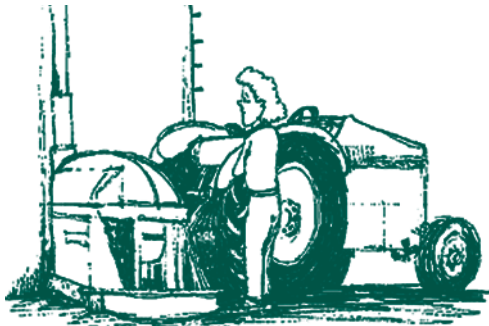
*When you have made your selections, check the Answer Feedback Book and compare it with your answers for Issue C.*

**Table 2. Kayles farm financial situation before and after purchase of the Dillon farm.**

Item	Amount	
	Before purchase	After purchase
<b>Solvency measures:</b>		
Total assets	\$430,500	\$509,900
Total liabilities	62,000	165,500
Net worth	368,500	344,400
Debt/Asset ratio	0.14	0.32
Line of credit	\$50,000	\$50,000
Credit available	38,000	30,000
<b>Income measures:</b>		
Gross farm income	\$60,727	\$89,038
Net farm income	10,363	9,688
Off-farm income	26,000	26,000
Principal payments	11,249	4,949
Net cash flow	1,394	8,739



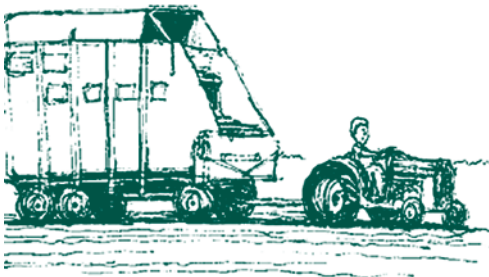
**Figure 4. Hours of labor required and available for farm operation after purchase of Dillon farm.**



## Issue D—Hazards During Harvest

It is September of the same year. The Kayles have retained heifers, purchased 25 new brood cows, and maintained the same crops, but with more acreage. The extra labor required by their larger farm has prevented routine maintenance of equipment. There has been too little time for relaxation and recreation.

The Kayles are in the middle of harvesting 9 acres of tobacco and 15 acres of corn silage. Three days ago, they cut 2 acres of tobacco. The corn will soon be past its prime. They are pressed for time. It is overcast and windy. Rain is moving in tonight. Because the extra part-time help he expected didn't show up, Eugene and two friends worked since early morning to house the tobacco. Eugene didn't get to chop the corn silage as he had planned.



As soon as his wife and son get home, they begin to harvest the corn. Eugene drives the 75-horsepower tractor and silage chopper to fill the silage wagons. Ellen operates the silo blower with the 60-horsepower tractor. Billy uses the old 35-horsepower utility tractor to shuttle the silage wagons from the field to the barn and back. (See **Figure 5**.)

What hazards are present as Eugene, Ellen, and Billy harvest the corn silage? (*On the answer sheet, please check whether you AGREE or DISAGREE with each of the following statements.*)



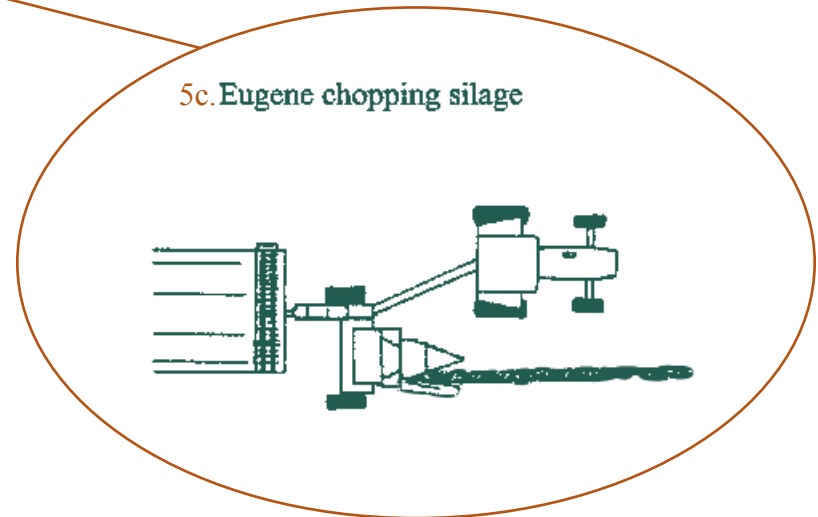
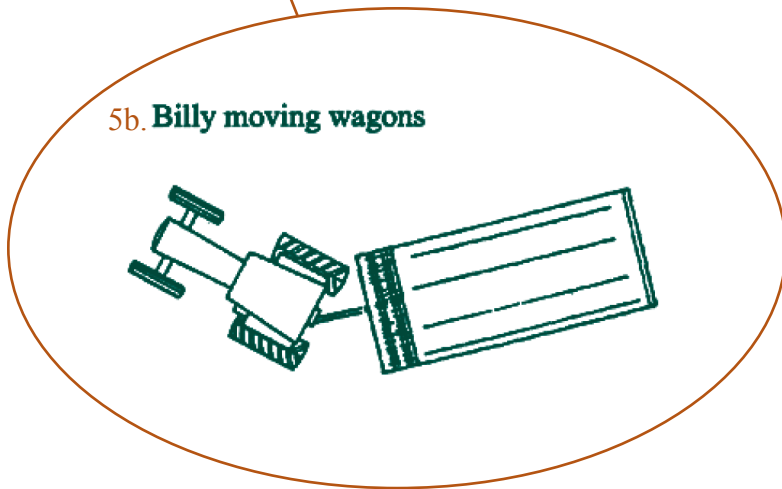
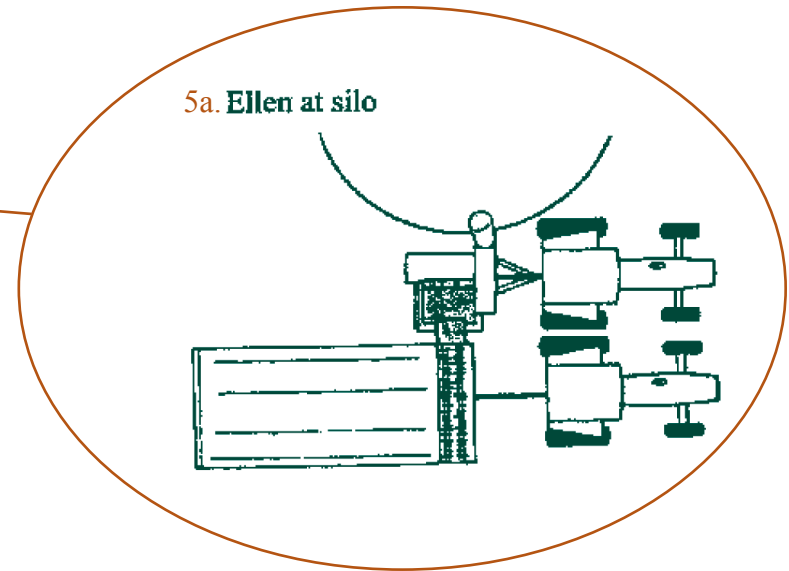
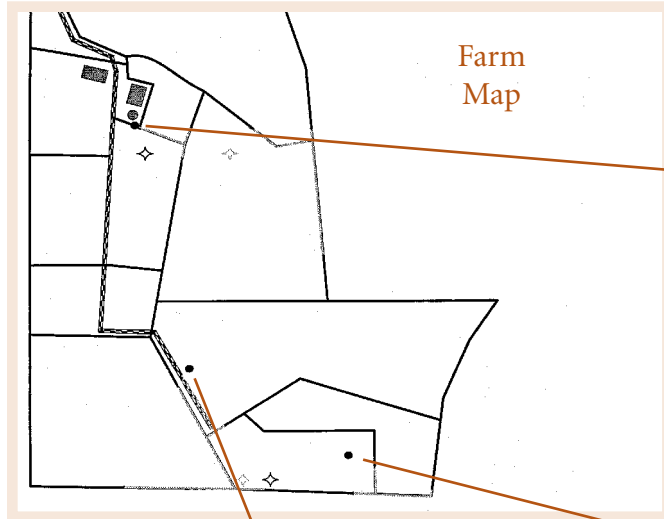
19. Billy's tractor is too small for the job.
20. The noise from the tractors is excessive
21. Someone could become entangled in the PTO (power take-off).
22. All three are at risk of heat stroke.
23. Someone might be caught or crushed between the two tractors at the silo.
24. Steep slopes, sink holes, and ravines might contribute to tractor overturns.
25. Breathing silo gas may cause illness or death.
26. Taking short cuts, being in a hurry, and being tired greatly increase the risk of an injury.

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What hazards are present as Eugene, Ellen, and Billy harvest the corn silage?

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*When you have made your selections, check the Answer Feedback Book and compare it with your answers for Issue D.*



**Figure 5. Work activities and locations of Ellen, Billy, and Eugene.**  
Figures 5a, 5b, and 5c were reproduced by permission of Deere & Company, © 1999. All rights reserved.

in an instant . . .



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What should Eugene do now?

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## The Overturn

### Issue E—First Aid for Billy

It is about 6:30 p.m. The Kayles have chopped and unloaded several loads. On the next return trip, Billy is in a hurry. At the top of the hill he fails to shift down and throttle back. The full forage wagon begins to push his tractor. Billy brakes and the right wheel grabs. In an instant, the tractor and wagon jackknife, go off the road, and overturn down the hill. Billy is thrown from the tractor and it rolls over him. Eugene sees this happen and drives his tractor, chopper and wagon to Billy.

Billy is lying on his back. He is awake and moaning. His right thigh bone is broken and sticking out through his bloody jeans. The overturned tractor is not running. Both it and the silage wagon are down the slope from Billy. Billy says he can't move because it hurts too much. He says he is really thirsty and cold.

What should Eugene do now? (*On the answer sheet, please check whether you AGREE or DIS-AGREE with each of the following statements.*)

27. Eugene should help Billy sit up, ask him whether he can move his legs, and tell him he is going to be OK.
28. Eugene should tell Billy to lie still and not to move; he should assure him that he is going for help and will be right back.
29. Eugene should put his belt around Billy's right leg just above the open wound. He should then tighten the belt like a tourniquet until the bleeding stops.
30. Eugene should carefully straighten Billy's leg into a more comfortable position and then go for help.
31. Eugene should give Billy a drink of water and then go for help.

*When you have made your selections, check the Answer Feedback Book and compare it with your answers for Issue E.*





*I can't move—  
It hurts too much!  
I'm thirsty and cold.*





## Issue F— Calling for Help

Eugene covers Billy with a jacket he has with him on the big tractor. He tells Billy not to move and to rest quietly while he goes for help. Then Eugene rushes back to the barn on the big tractor pulling the chopper and partially filled silage wagon. Eugene tries to stay calm. He remembers it is 1.75 miles by a gravel road from the farm gate to the paved highway that leads to the community hospital 12 miles away (see **Figure 6**). He is thankful for the county 911 emergency medical service (EMS).

Ellen sees him coming and knows something is wrong. She hops into the pickup truck and meets Eugene halfway. Eugene tells Ellen what happened. What should Billy's parents do now? (*On the answer sheet, please check whether you AGREE or DISAGREE with each of the following statements.*)



32. Eugene should take the pickup truck (which has a portable cellular phone and a blanket in it) and get back to Billy.
33. Eugene should drive the pickup while Ellen calls 911 on the cellular phone.
34. Eugene and Ellen should hurry back to Billy, wrap him in a blanket, lift him gently into the back of the pickup truck, and then drive him slowly and carefully toward the community hospital to meet the ambulance.
35. The parent who stays with Billy should keep the phone, watch over him, comfort him, and keep him warm and quiet. The other parent should take the pickup truck and go to the turnoff to the farm at the main road to wait for the ambulance and lead it back to Billy.



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What should Billy's parents do now?

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*When you have made your selections, check the Answer Feedback Book and compare it with your answers for Issue F.*

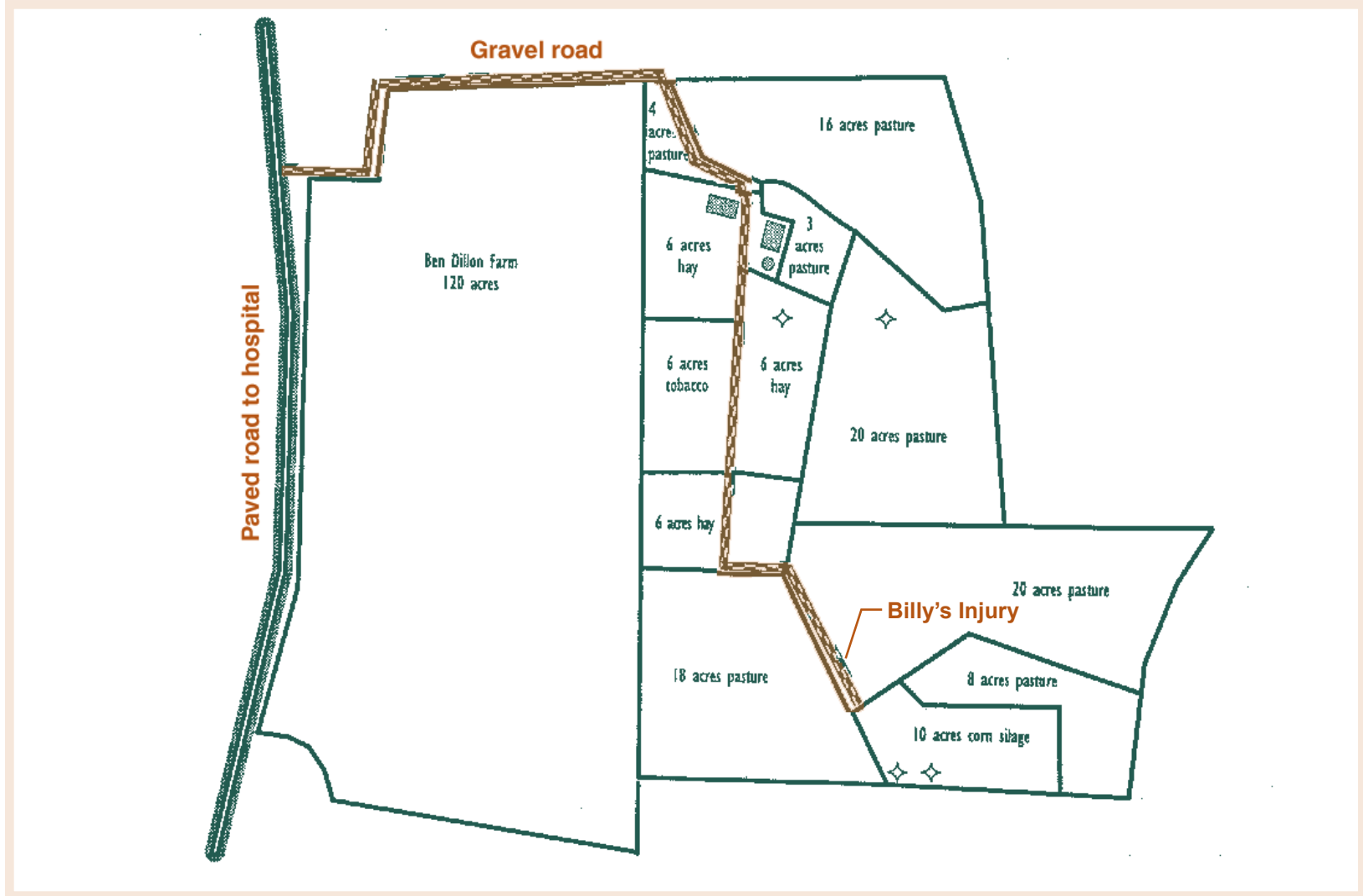
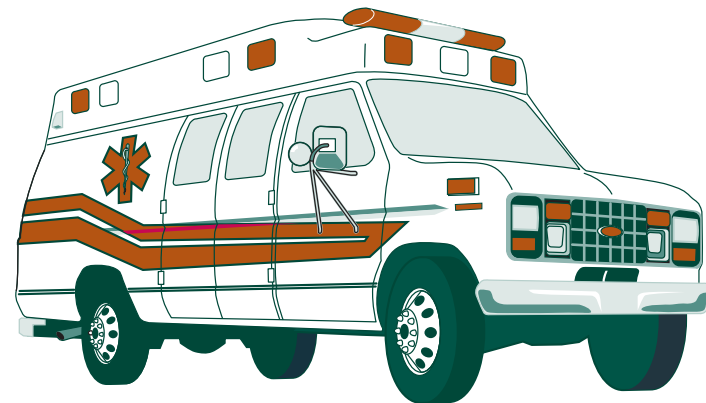
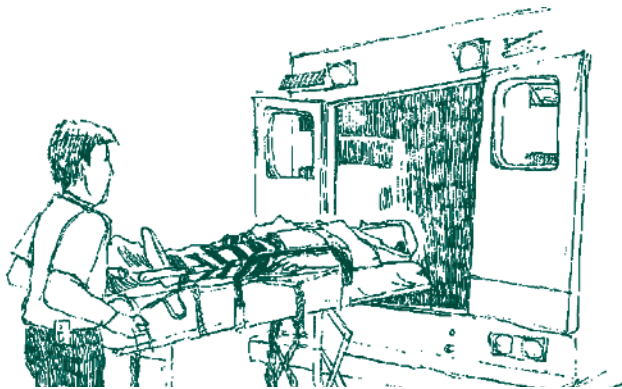
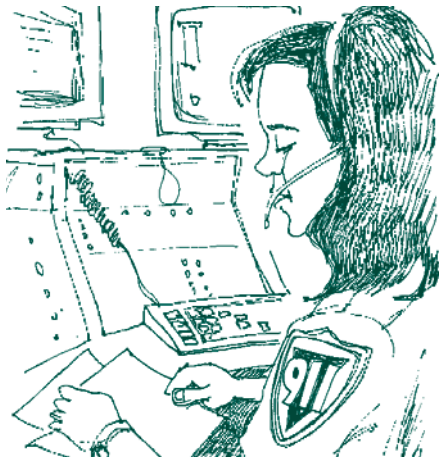


Figure 6. Kayles farm road to the site of Billy's injury.

## Aftermath

The emergency medical service (EMS) team arrives with an ambulance, stabilizes Billy, and transports him to the community hospital. There he is given emergency treatment and transferred immediately to a regional trauma hospital 2 hours away. Billy is in critical condition with a fractured pelvis, an open fracture of the right femur, shock, and a large crush wound to the pelvic area and right thigh.

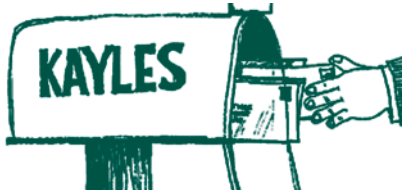
Billy comes out of surgery okay but is in intensive care for 3 days. He develops a serious wound infection and requires a 6-week stay in the hospital. Ellen has to take 2 weeks of unpaid leave to stay with Billy while he is in the hospital. Finally, Billy comes home. But after 2 weeks, the Kayles are having a tough time. The neighbors helped out initially, but they are now busy with their own work. Billy has missed a lot of school and can't play basketball this season.



**Notes**



*Please turn the page and continue →*



repair utility tractor: \$1800<sup>00</sup>  
 silage wagon: total loss  
 (replace? do without?)

other costs:  
 extra on credit card: \$1500<sup>00</sup>  
 substitute labor: \$1000<sup>00</sup>  
 tobacco-quality loss: \$1300<sup>00</sup>  
 Ellen's income loss: \$1400<sup>00</sup>  
 \$5200<sup>00</sup>

## Issue G—Covering Unexpected Expenses

Eugene is in the middle of stripping tobacco and has had to hire part-time help. The quality of his tobacco is not up to his usual standard because of delays in harvesting. Eugene has repaired the utility tractor at a cost of \$1,800. The silage wagon was a total loss.

The bills have begun to come in (see hospital bills, **Figure 7**). On the basis of their insurance policy, the Kayles will be responsible for 20% of these charges. Additional costs associated with Billy's hospitalization include the following:

\$1,500 more than the usual credit card bills for motels, eating expenses, and telephone calls

\$1,000 for substitute labor to replace Ellen, Billy, and sometimes Eugene

\$1,300 for anticipated losses resulting from lower tobacco quality

\$1,400 of income lost for 2 weeks of unpaid leave for Ellen

Total: \$5,200 in nonmedical expenses associated with Billy's hospitalization.

How can Eugene and Ellen cover these expenses? (*On the answer sheet, please check whether you AGREE or DISAGREE with each of the following statements.*)

36. Eugene and Ellen should use their farm line of credit.
37. They should max out their credit cards.
38. They should pay some of the bills and let some of the bills go.
39. The Kayles should talk to their lender and discuss cash needs and repayment.

---

How can Eugene and Ellen cover these expenses?

---

When you have made your selections, check the Answer Feedback Book and compare it with your answers for Issue G.

## STATEMENT OF ACCOUNT

REGIONAL MEDICAL CENTER  
P.O. BOX 2000  
BIG CITY, KENTUCKY 40000

Pay This Amount > \$107,000.00

Amount Paid >

Make Check Payable To:  
REGIONAL MEDICAL CENTER

**Statement date**

11/15/94

**Mail to:**

REGIONAL MEDICAL CENTER  
P.O. BOX 2000  
BIG CITY, KENTUCKY 40000

G  
U  
A  
R  
A  
N  
T  
O  
R

4K0 79968857  
BILLY KAYLES  
1750 MIDNIGHT LANE  
SOMEWHERE, KENTUCKY 40000

Please mail upper portion of statement with payment in envelope provided.

Services rendered	Amount
ICU STAY	\$9000.00
FLOOR STAY	\$72,000.00
OR	\$6000.00
PHYSICIAN CHARGES (ORTHOPEDICS, ANESTHESIA)	\$20,000.00
	\$107,000.00

COMMUNITY HOSPITAL  
P.O. BOX 768  
SOMEWHERE, KENTUCKY 40000

INQUIRIES: 502-555-5555

**DATE OF STATEMENT**

11/16/94

YOUR ACCOUNT NUMBER IS  
64782

BILLY KAYLES  
1750 MIDNIGHT LANE  
SOMEWHERE, KENTUCKY 40000

MAIL YOUR PAYMENT TO:  
COMMUNITY HOSPITAL  
P.O. BOX 768  
SOMEWHERE, KENTUCKY 40000

DATE	SERVICES RENDERED	AMOUNT
9/16/96	EMERGENCY TRANSPORT	\$3000.00
9/16/96	ED USE	\$1500.00
9/16/96	ED PHYSICIAN	\$500.00
		\$5000.00

Figure 7. Hospital bills.

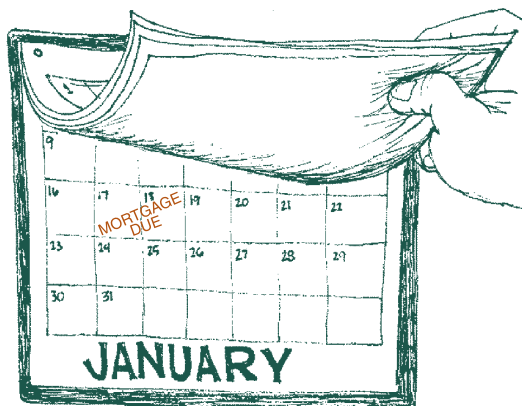




## Issue H—Options for Managing the Farm After Billy’s Recovery

It is September of the next year. Eugene has tried to manage both farms. Billy is pretty much back to normal. Getting Billy to the physical therapy he needed twice a week for six months after his injury has prevented Ellen from doing as much farm work as usual. Billy hasn't been able to help much because of his injury and his need to attend summer school.

Things have not gone well on the farm. The Kayles had to put off planned machinery purchases. They have had to cut corners and yields have suffered. As a result of Billy's injuries, the Kayles have accumulated short-term obligations of more than \$70,000. They still have livestock, machinery, and land debt of more than \$150,000. The mortgage payment in January on the land, livestock, and Dillon farm improvements will be \$22,349. They are worried that there won't be enough income to meet the January mortgage payment. (See **Table 3** for their current financial status.) The labor requirements for the combined Kayles and Dillon farm and the family's available labor following the injury are described in **Figure 8**.



---

---

What choices should the Kayles make?

---

---

At the dinner table the family is discussing what to do. What choices should the Kayles make? *(On the answer sheet, please check whether you AGREE or DISAGREE with each of the following statements.)*

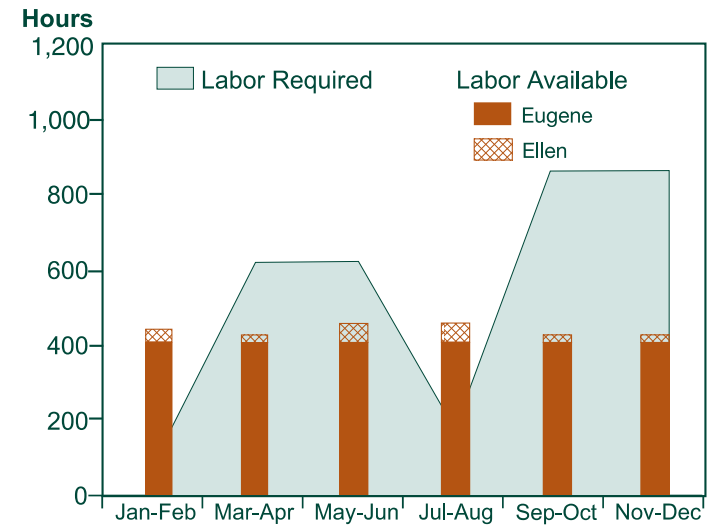
40. Eugene and Ellen should accept Billy's offer to drop out of school when he turns 16 in March so he can work full time on the farm.
41. The Kayles should sell the Ben Dillon place.
42. They should share-lease the 9,000-lb tobacco base on the Dillon farm.
43. The Kayles should lease out the 40 acres of cropland and 80 acres of pasture on the Dillon place.
44. They should sell a third (30) of the brood cows.
45. Ellen should encourage Eugene to get an off-farm job.
46. The family should restructure the debt.

*When you have made your selections, check the Answer Feedback Book and compare it with your answers for Issue H.*



**Table 3. Kayles farm financial situation before and after purchase of Dillon farm and after Billy's injury.**

Item	Amount		
	Before purchase	After purchase	After Injury
<b>Solvency measures:</b>			
Total assets	\$430,500	\$509,900	\$508,000
Total liabilities	62,000	165,500	224,800
Net worth	368,500	344,400	283,200
Debt/Asset ratio	0.14	0.32	0.44
Line of credit	\$50,000	\$50,000	\$50,000
Credit available	38,000	30,000	5,000
<b>Income measures:</b>			
Gross farm income	\$60,727	\$89,038	\$81,950
Net farm income	10,363	9,688	1,651
Off-farm income	26,000	26,000	24,000
Principal payments	11,249	4,949	8,403
Net cash flow	1,394	8,739	(7,752)



**Figure 8. Hours of labor required and available for farm operation after Billy's injury.**

## Issue I—How a Tractor With a Roll Bar (ROPS\*) Might Have Changed Things

Suppose that when the Kayles first bought the Dillon farm, they had purchased a larger tractor equipped with a rollover protective structure (ROPS). What difference could that have made? (*On the answer sheet, please check whether you agree or disagree with each of the following statements.*)



---

What difference could a tractor with  
a ROPS have made?

---

47. Billy probably would not have been injured.
48. The Kayles would have saved money.
49. Buying a larger tractor was not an option because they could not afford it at that time.
50. Even without the larger tractor, they could have prevented the injury if they had maintained the brakes on the utility tractor.
51. The Kayles could have been less stressed and worried about equipment breakdowns.
52. The risk of injury would have been decreased for everyone who operates the tractors.
53. Family members and others who operate the tractors would have had greater peace of mind.
54. The Kayles would have been in compliance with the law.

---

\*A ROPS is a rollover protective structure, or roll bar.

*When you have made your selections, check the Answer Feedback Book and compare it with your answers for Issue I.*





---

What might the Kayles have done to manage the increased workload more effectively?

---

## Issue J—Managing Workloads Better

The Kayles experienced a large additional workload after their purchase of the Dillon farm. These increased labor demands led to stress, fatigue, and short cuts, all of which contributed to Billy's injury and the economic difficulties that followed.

What might the Kayles have done to manage the increased workload more effectively? (*On the answer sheet, please check whether you AGREE or DISAGREE with each of the following statements.*)

55. They could have used the large 75-hp tractor for both chopping the corn and hauling the loaded silage wagons to the barn.
56. They could have better anticipated and planned for workload deficits, just as they planned and managed cash-flow deficits.
57. In retrospect, perhaps the Kayles should not have purchased the Dillon farm.
58. The Kayles should have seriously considered upgrading their farm machinery and implements when they purchased the farm.

*When you have made your selections, check the Answer Feedback Book and compare it with your answers for Issue J.*





---

Think about your own farm and family, or think about someone you know who lives or works on a farm.

---

## Issue K—Something to Think About on the Way Home

Think about the Kayles' story. Then think about your own farm and family. If you don't live or work on a farm, think about someone you know who does. Then answer the three questions that follow. *(On the answer sheet, please check your ratings and add your thoughts.)*

59. On a scale of 0 to 10, how great is your risk (or the risk of the farm family members you are thinking about) of an injury and economic loss similar to that of the Kayles family?
60. Has this exercise convinced you to make safety a higher priority on your farm (or the farm you are thinking about) and to take steps to protect family members from injury?
61. Suppose that someone was seriously injured or killed on your farm (or the farm you are thinking about). What impact would this have on the farm and the farm family?

*On the answer sheet, please circle your ratings and add your thoughts.*

## Looking back

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UNIVERSITY OF KENTUCKY  
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

NAME: BILLY GALE	DOB: 01/15/1968	UNIVERSITY OF KENTUCKY ID:	10000000000000000000
SSN: 123-45-6789	PHONE: 606-325-1234	EMAIL: b.gale@uky.edu	
ADDRESS: 1234 FARM ROAD	CITY: LEXINGTON	STATE: KY	ZIP: 40506



MONTHLY EXPENSES	
Category	Amount
Medical	\$1,200.00
Transportation	\$500.00
Utilities	\$300.00
Insurance	\$200.00
Food	\$150.00
Other	\$100.00
<b>Total</b>	<b>\$2,350.00</b>

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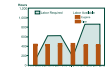
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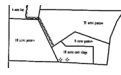
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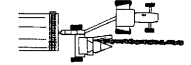


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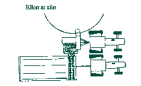


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- Rick Niemeier** Education and Information Division, NIOSH (*Eugene*)

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