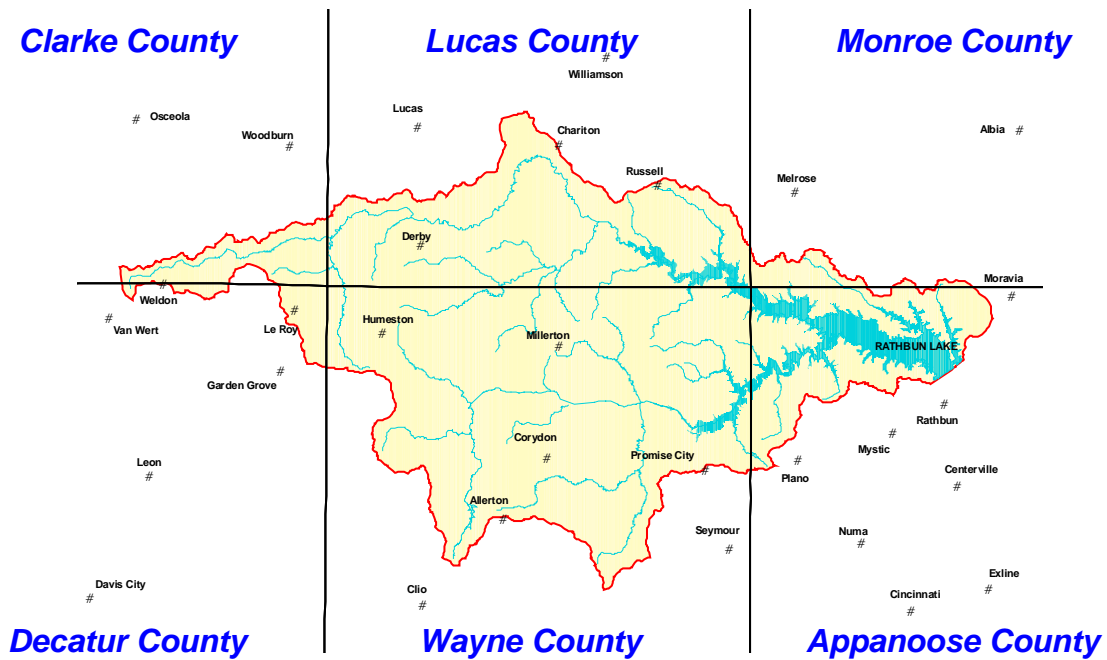




Rathbun Land and Water Alliance

# ***Rathbun Lake Watershed***



## ***Land Use and Farming Practice Survey Findings***

IOWA STATE UNIVERSITY

University Extension

Ames, Iowa

June 2001

**RATHBUN LAKE WATERSHED  
Land Use and Farming Practice Survey Findings**

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**RATHBUN LAKE WATERSHED**  
**Land Use and Farming Practice Survey Findings**  
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**EXECUTIVE SUMMARY**

The Rathbun Lake Watershed Land Use and Farming Practice Survey is the result of a cooperative effort by the Rathbun Land and Water Alliance and Iowa State University Extension to Communities. A total of 927 landowners were identified in the Rathbun Watershed to participate in this study. A total of 430 completed surveys were returned for a usable response rate of 50 percent.

Respondents averaged 57 years of age which is a relatively accurate reflection of the age distribution among farm operators in this 6-county region. According to the 1997 Census of Agriculture, the average age of farm operators in Clarke, Decatur, Monroe, and Wayne was 54, in Lucas 55, and in Appanoose the average age of farm operators was 56. However, respondents did report, on average, higher acreages than cited in the Census of Agriculture. In 1997, average farm sizes in the region ranged from 303 acres (Appanoose) to 393 acres (Wayne). Among respondents the average number of acres operated was 474. At least part of this difference in averages is accounted for by the inclusion of rental acres in the respondents' average versus strictly farm size in the census. Overall, respondents' farmland was distributed across the watershed in a pattern similar to actual land distribution. Fifty percent of the respondents reported completing formal education beyond high school with 22 percent being college graduates.

Although the response rate was high and on several significant dimensions the respondents appear representative of all landowners in the watershed, it is not possible to fully ascertain the degree to which respondents represent the non-respondents; consequently, the findings of this study should be cautiously interpreted as representing the landowner population as a whole.

The 10-page questionnaire elicited responses for farming operations, educational needs and resources, and attitudes regarding various management practices and government regulations. The primary goal of this project was to assist decision makers and organizations in the area to successfully incorporate Best Management Practices (BMPs) into the Rathbun Watershed region.

## Land Use

Cropland in the watershed is highly erodible, nonetheless row crop production was a major part of farmland acres in crop year 2000 (20% in soybeans, 19% in corn). Nearly 8 of every 10 of these corn and soybean producers (79%) however, indicated they would consider converting row cropland to hay or pasture if the per acre profit was the same. Among the 21 percent that would not consider such a switch, the most common reason offered was that government program options are more advantageous with row crop production than with livestock production. This would indicate that government programs that subsidize only corn and soybean production may, in effect, be encouraging the continuation of row crop production on erosive land. If so, the challenge for educational programs to entice changes in land use is increased. A policy response, largely external to the Rathbun Land and Water Alliance is to create alternative incentives, or at the other extreme, strong enough “disincentives” to override those government programs.

Twenty-four percent of the acres reported were in hay (including grass and alfalfa as well as improved pasture), 16 percent in CRP, and 13 percent in permanent non-improved pasture. The Rathbun Land and Water Alliance staff estimates a majority of land currently enrolled in CRP will likely be released from the program in the next 2 to 3 years. Given this time frame, it is vital to introduce management choices for those 30,000 plus acres before they convert back to traditionally managed row-crop production.

## Soil Management

Dominant tillage practices varied depending on crop rotation. No-till was reported by more than half of the respondents for their corn-following-soybeans rotation (51%), and soybeans-following-sod/meadow (64%). Spring tillage passes and then planting was the most common tillage practice for corn-following-corn rotations (47%), and soybeans-following-corn (41%). While no-till is the preferred method of tillage to reduce erosion susceptibility, there appears to be a trade-off in farm chemical usage. For example, among the operators reporting no-till as their dominant tillage method, only a quarter of them reported using rotary hoeing for weeds (24%), or cultivation for weeds in row crops (26%). At the same time, two-thirds of those using no-till report using post-emergent herbicides as weed pressures emerge. On the other hand, operators reporting spring or fall tillage practices were more likely to use rotary hoeing (38% and 37%, respectively), or cultivation (40% and 39%, respectively) for weeds, and were less likely to use post-emergent herbicides (56% and 54%, respectively).

### Chemical Use

Regarding chemical use, 7 of every 10 respondents indicated using commercial fertilizers; 6 of every 10 used herbicides; and half used insecticides. In each case, more than 60 percent of the respondents reported custom applicators applied the majority of these chemicals. “Self or a family member” was the second most common response with more than a quarter indicating they (or a family member) applied the majority of fertilizers, herbicides, and insecticides to their fields. The physical hazards, as well as the environmental consequences, from improperly applied farm chemicals are well documented. Given the pervasive use of agricultural chemicals, application training and certification and correct application of products must be taken seriously.

### Waste Management

Among the 93 respondents with livestock in dry lot or feedlot settings, 74 percent indicated having at least one method in place for controlling runoff, another 12 percent indicated no control method was necessary. In other words, 14 percent of those with livestock in dry lot or feedlot settings have drainage but apparently, have no runoff control method in place. Waste management, especially with the growth of large scale units, will increasingly be a major factor in water quality protection.

### Educational Needs

The majority of respondents agree that better erosion control management, the marketing of alternative crops, and better pesticide management would be three very effective means of improving water quality in Rathbun Lake. Conversely, more than a quarter indicated that better record keeping systems and timber stand improvements would not be effective at all. Fewer than a third of the landowners indicated they had changed tillage systems or adopted better soil erosion control methods, and fewer than 40 percent had stopped using atrazine. Furthermore, among the respondents that had not made such alterations, only 12 percent were “very interested” in changing their tillage systems and only 19 percent in stopping their use of atrazine.

The challenge is that landowners know that some practices are more beneficial to water quality than others but are not interested or able to utilize those more beneficial practices. With only one exception (“adopt better soil erosion control methods”, 10%) fully 20 to 53 percent of non-adopters responded “not at all interested” in adopting for the other 7 management practices identified.

With regards to how to most effectively get the necessary information to the landowners to educate and encourage BMPs, farm magazines were identified as by far the most common source of information, but not necessarily the most helpful. Face-to-face contact was identified as the source for which the greatest portion of respondents indicated the information received was “very helpful”. Informational meetings, field days, demonstration projects, newsletters, and farm magazines followed in that order. Although it is often tempting to be on the “cutting edge” of educational technologies, more than a quarter of those who had used videotapes or the Internet and web pages for information deemed the information gained from these sources as not helpful. From the list of nine ways of obtaining information these two items were substantially higher than the others in the “not helpful” response category.

The more effective teaching methods, especially the face-to-face contact, demand significant personnel, time, and financial commitments. Farm Service Agencies and Natural Resources Conservation Services were the two most commonly cited educational resource organizations utilized by the landowners in the watershed and yet not even half of the respondents had sought advice from either of these organizations. Furthermore, only 3 of every 10 respondents indicated they were aware of the Rathbun Land and Water Alliance. These numbers reflect a couple of things – 1) the importance of these organizations working together in their educational efforts to best serve the watershed and ensure water quality in Lake Rathbun; 2) that many services in the area are being under-utilized possibly due to lack of awareness or lack of knowledge regarding the services available.

Finally, respondents were given a series of statements for which they were asked to indicate their level of agreement or disagreement. Several of the questions suggest a context likely to elicit a positive response to educational programming promoting water quality. For example, there was a sense that water contamination is an environmental problem in the area, that respondents worry about the purity of their drinking water, and they are interested in assistance to help reduce erosion on their property. Alternatively answers to other questions indicate challenges to an educational approach. Seventy-two percent reported already knowing what steps to take to preserve soil and water and 83 percent want compensation if regulations reduce profitability or value of farmland. Additionally, there were other statements for which sizeable portions of the respondents (20% to 50%) reported “don’t know” or “undecided”. Again, this could be taken as a prime educational opportunity. It may be that respondents are confused by multiple sources of information, not knowing which sources are accurate and which are only acting in their own self-promoting interests. This reiterates the importance of the

organizations in the area working in one voice on the issue of BMPs and water quality issues in Lake Rathbun.

## INTRODUCTION AND METHODOLOGY

The Rathbun Lake Watershed Land Use and Farming Practice Survey was conducted in the spring of 2001. The results are based on 430 landowners in the Rathbun Lake Watershed. The study was designed to generate information to assist decision-makers and policy-makers to incorporate the most effective types of land management practices into the Rathbun landscape.

The development of the survey was a cooperative effort between the Rathbun Land and Water Alliance and Iowa State University Extension to Communities. A draft of the survey was pre-tested with nine area residents. Modifications and minor revisions were made to the instrument based on the comments from the pre-test for a final version of the questionnaire.

Questionnaires were mailed to all 927 recorded landowners in the Rathbun Lake Watershed as of January, 2001. The mailing process, completed over a five-week period, included a first survey mailing, thank you/reminder postcards, and a second survey mailing to non-respondents. All questionnaires were numbered for tracking purposes, but confidentiality was assured by separating the name and address listing from the completed forms. In an effort to maximize the response rate, respondents who completed and returned their surveys by a specified date (April 16, 2001) were eligible for a drawing of two \$200 cash prizes provided by donations to the Rathbun Land and Water Alliance.

In conjunction with the mailing of the surveys, press releases were sent to the following area publications: Lucas County SWCD quarterly newsletter, Wayne County SWCD quarterly newsletter, the *Farm Bureau Spokesman*, the Rathbun Regional Water Association quarterly newsletter, and the *Times Republican* in Corydon.

Completed questionnaires were sent to Iowa State University for data entry and analysis. Of the list of 927 landowners, 70 questionnaires were returned as non-deliverable by mail or by respondents no longer actively farming; 430 were completed and returned for a response rate of 50 percent. Although the response rate is commendable, in order for the findings to be generalizable to the population of landowners we have to assume non-respondents, in

aggregate, are randomly distributed; that those who responded are no different than those who did respond. Because it is not fully possible to ascertain the “representativeness” of the respondents versus the non-responding landowners in the watershed, the findings of the report should be cautiously interpreted as representing the landowner population as a whole.

## **PROFILE OF RESPONDENTS**

Responding landowners represented 81 different zip codes, the majority (60) were in Iowa. Most of the farmland owned by the respondents covered 44 townships in six counties of the Rathbun Lake Watershed.

Respondents averaged 57 years of age, ranging from 22 to 94. Twenty-two percent were under the age of 45, and 35 percent were 65 years of age or older. These age demographics closely parallel those of the 1997 Census of Agriculture in which the average age of farm operators in the 6-county region ranged from 54 to 56. Ninety-four percent of the responding landowners reported having at least a high school education, with 22 percent having 4 or more years of college.

Acres operated by these landowners ranged from a low of 10 to a high of 3,500. Nineteen percent of respondents indicated farming fewer than 100 acres while 13 percent farmed 1,000 or more acres. Overall, the average number of acres operated was 474. This average is higher than the average farm size cited in the 1997 Census of Agriculture. Appanoose County that year had the lowest average farm size (303) while Wayne (393) had the highest in that region. At least part of the reason for this difference in averages is that in the survey, rented acres were included whereas in the census citation they are not. More than 9 of every 10 respondents (93%) owned at least part of the land they operated, 3 of every 10 (31%) both owned and rented land.

Throughout this report, operators of less than 200 acres are referred to as “small operators/landowners”, those with 500 or more acres as “large operators/landowners”, and

“mid-size” operators/landowners refers to those farming 200 to 499 acres. A check was made for differences in answers to selected survey questions based on the number of acres operated (Appendix A). Where significant, differences are presented in this report.

Stock cows were reported on more than half of the operations (52%), and 26 percent of the respondents reported having “backgrounded” calves. Smaller portions of respondents (less than 10%) indicated having other types of livestock (pigs, sheep, chickens, dairy cows, etc.).

## **FARM MANAGEMENT TECHNIQUES**

### Land Use and Soil Management

Thirty-nine percent of the total farm acres reported by the respondents were in row crops in crop year 2000. Twenty percent of this land was in soybeans, the other 19 percent in corn. Twenty-four percent of the acres reported were in hay (including grass and alfalfa as well as improved pasture), 16 percent in CRP, and 13 percent in permanent non-improved pasture.

Landowners were asked to indicate their dominant tillage practice given a certain rotation (Table 1). Most prevalent for the corn following corn rotation were “spring tillage passes and then plant” (47%), with no-till (29%) as a distant second. No-till was the dominant tillage practice for corn following soybeans and soybeans following sod or meadow (51% and 64%, respectively) rotations. Percentages were more evenly distributed among the corn following sod/meadow and soybeans following corn rotations.

**Table 1. Dominant Tillage Practices for Specified Rotations.**

<u>Rotation</u>	<u>Spring tillage passes and then plant</u>	<u>No-till</u>	<u>Fall tillage and spring leveling</u>	<u>Other</u>
	-----percentages-----			
Corn – corn (n = 107)	47	29	11	13
Corn – soybeans (n = 224)	34	51	5	10
Corn – sod/meadow (n = 118)	26	33	32	9
Soybeans – corn (n = 214)	41	38	10	11
Soybeans – sod/meadow (n = 141)	14	64	14	8

At least 45 percent of small operators indicated using no-till for each rotation. That size portion was matched by large operators only in the soybeans following sod/meadow (71%) and corn following soybeans (56%) rotations.

When asked to identify the most prevalent erosion problem on their farm, responding landowners cited small gullies filled-in on a yearly basis (35%) and rill and sheet erosion (27%). Fewer than 20 percent indicated stream bank erosion or large gully erosion as their most prevalent problem.

### Chemical Use and Application

Seven of every 10 respondents indicated they use fertilizers, 6 of every 10 use herbicides, and half use insecticides. In each case, more than 60 percent of the respondents reported custom applicators applied the majority of these chemicals.

With regards to fertilizer application, approximately half reported using nitrogen (54%) and phosphorous (48%) in the spring. Fall was the second most common season for such applications with 11 percent and 14 percent, respectively. Relatively small percentages reported using manure in any season with spring being the most common (25%).

In crop year 2000, just over a quarter of the respondents (27%) walked through their fields 7 or more times observing crop/plant health, soil conditions, and/or the presence of insects or weeds. Conversely, 13 percent did not walk through their fields at all. Whereas nearly 1 of every 5 small operators reported not walking their fields even once, only 5 percent of the large operators indicated not utilizing this practice.

### Record Keeping

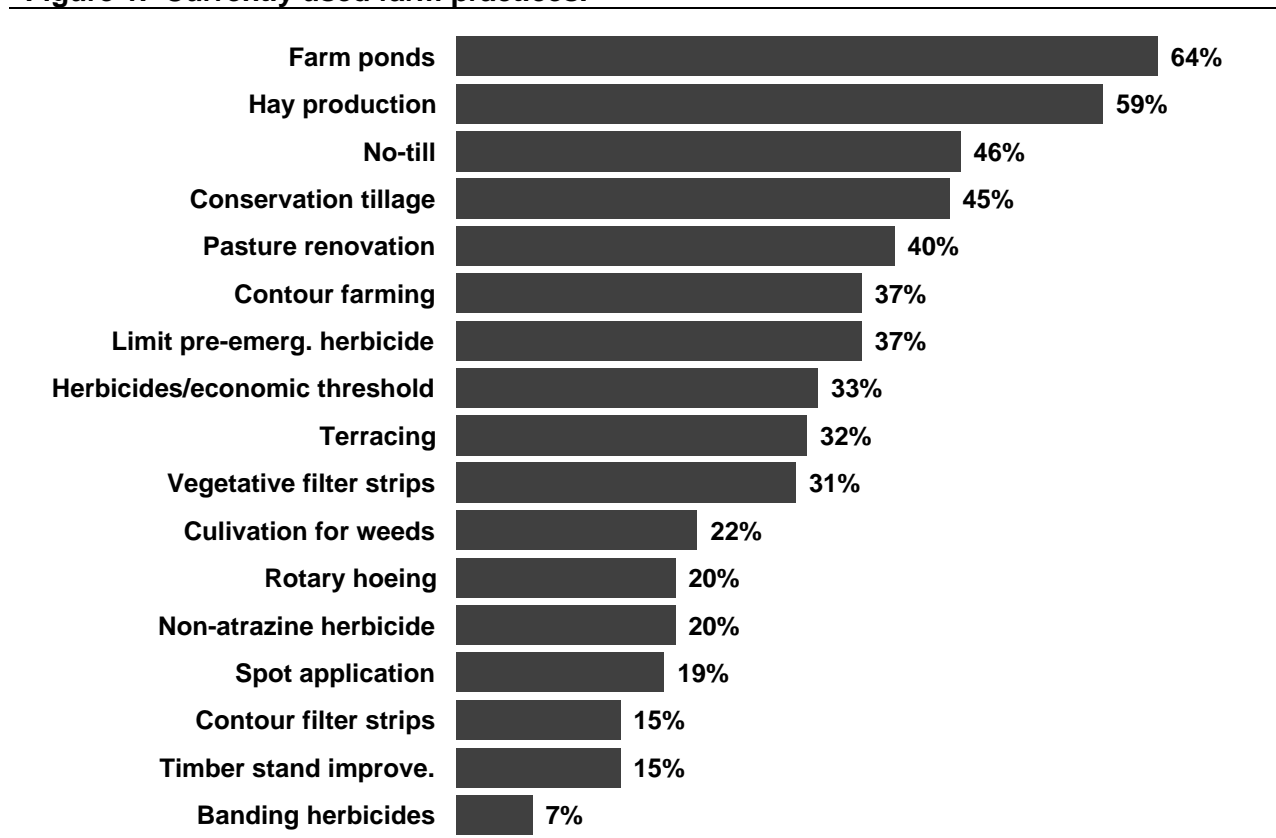
A series of questions asked the degree to which landowners keep records on crop yields and livestock production. Of the 257 respondents reporting acres in corn and/or soybeans in 2000, more than half (56%) reported having individual field records, 73 percent had overall yield

records, yet only 17 percent reported having records at both levels. Seven percent of the nearly 300 (297) operators with hay acres indicated having both individual field and overall production records. For farm chemicals, (fertilizer, herbicides/insecticides), 18 percent of the respondents (n = 303 and n = 208, respectively) reported having records at both levels.

### Overall Practices

Landowners were asked to identify current practices used on their land, and the factors that limit their adoption or expansion of such practices. More than half of the respondents reported their current operations included farm ponds (64%), and hay production (59%), with at least 30 percent utilizing 8 of the 15 other listed practices (Figure 1). Among the lesser used practices

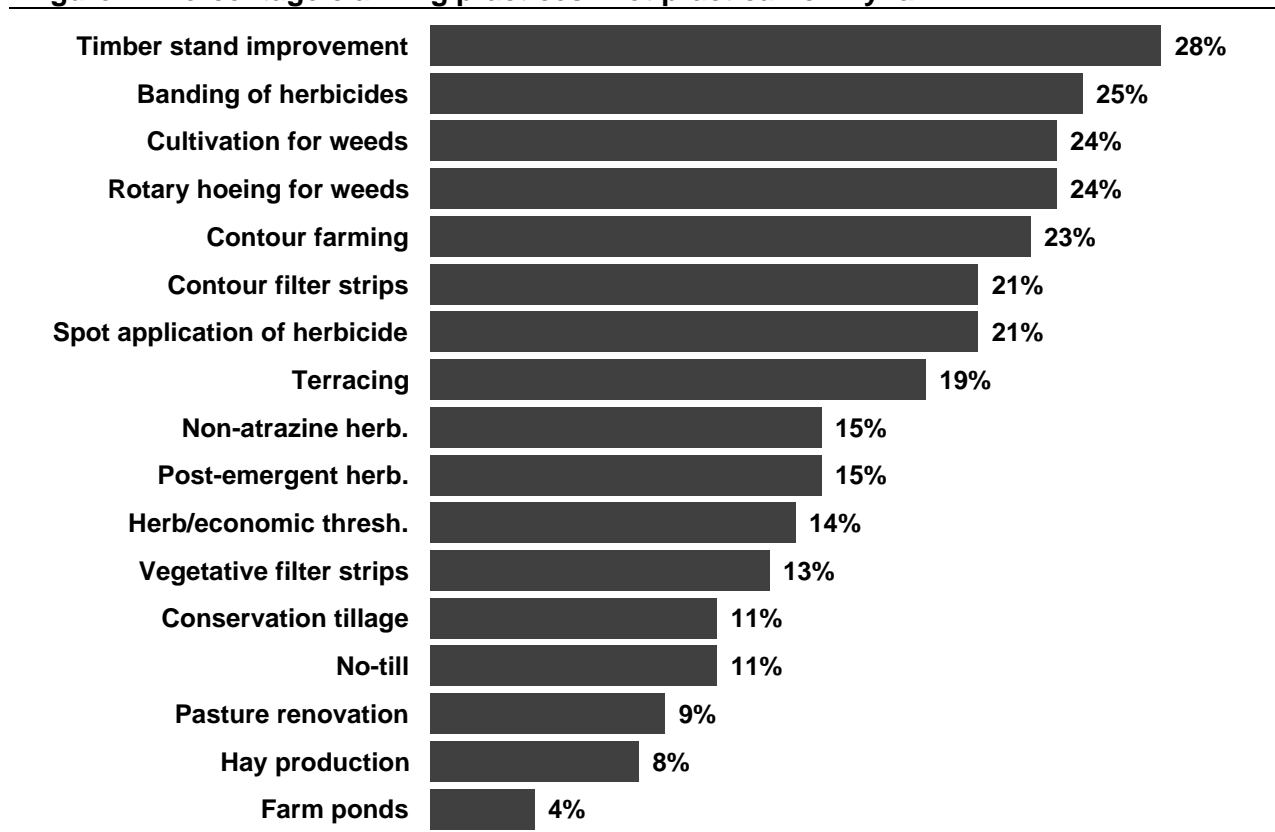
**Figure 1. Currently used farm practices.**



were using spot application of herbicides (19%), contour filter strips (15%), timber stand improvements (15%), and banding of herbicides (7%).

“Not practical for my farm” was the most common reason cited by respondents for not adopting or expanding these practices on their farms. As presented in Figure 2, this reason was offered by at least 20 percent of the respondents for a variety of practices. Only for terracing was expense cited by as many as 20 percent. More than 10 percent indicated not adopting rotary hoeing or banding of herbicides because of a lack of equipment fit. The factor of “it takes too much land out of production” was not indicated by more than 6 percent (contour filter strips and vegetative filter strips along waterways) for any practice.

**Figure 2. Percentage claiming practices “not practical for my farm”.**

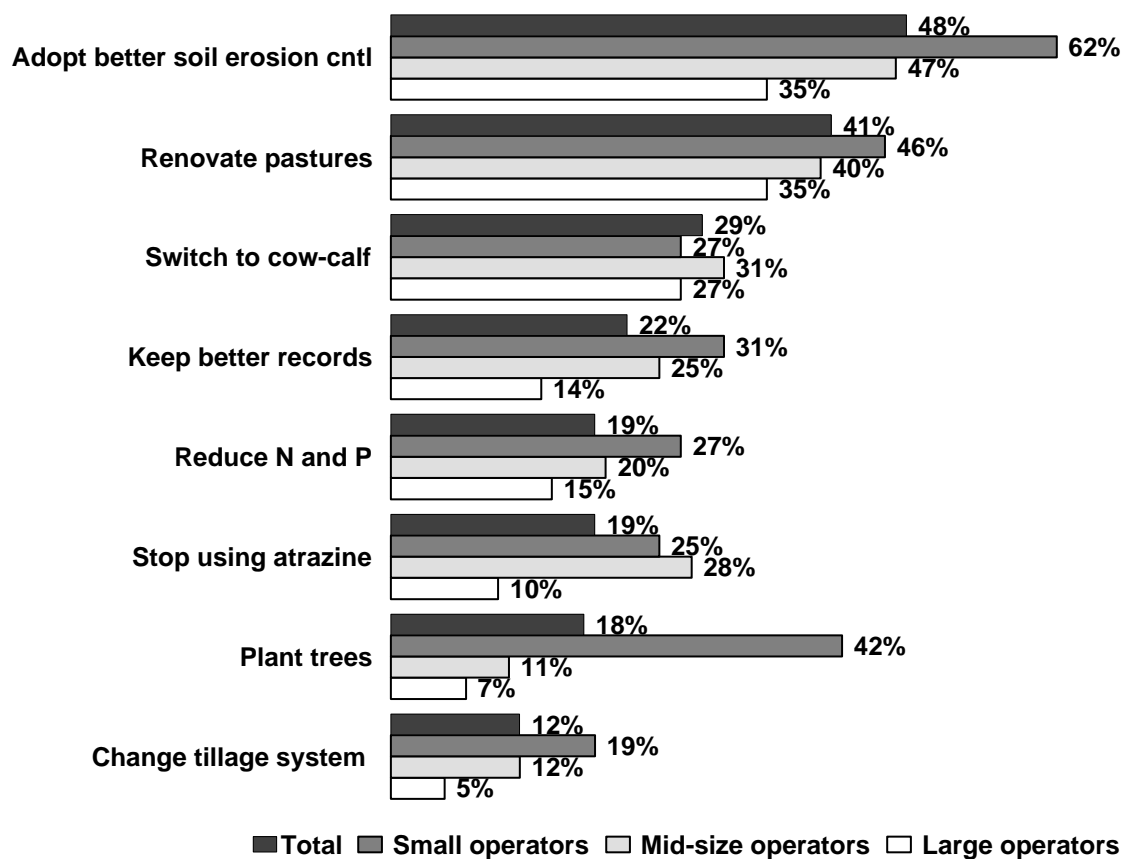


Another set of questions dealt with more specific management practices. More than a third of the respondents indicated they had switched to hay or cow-calf production (42%) or stopped using atrazine (36%). Half (50%) of small operators/landowners reported they had stopped using atrazine compared to 39 percent of the mid-size operators/landowners and 24 percent of the large operators/landowners. Other notable differences by size of operation included the

reduced use of nitrogen and phosphorous by more than a quarter of the small and mid-sized operators (27% and 26%, respectively) compared to 16 percent of large operators, and the switch to a cow/calf operation reported by 48 percent of mid-size, 44 percent of large and 34 percent of small operators.

Among the non-adopters of these management practices, the highest levels of interest in adopting were expressed for “adopt better soil erosion control methods” (48% “very interested”), and “renovate pastures” (41% “very interested”). The least amount of interest was in changing tillage systems (12% “very interested”). Differences among the different size operators in their levels of interest in adopting these practices are highlighted in Figure 3. Among few practices are the interest levels comparable (e.g., switching to cow/calf production). There are

**Figure 3. Level of interest\* in adopting management practices by acres operated.**

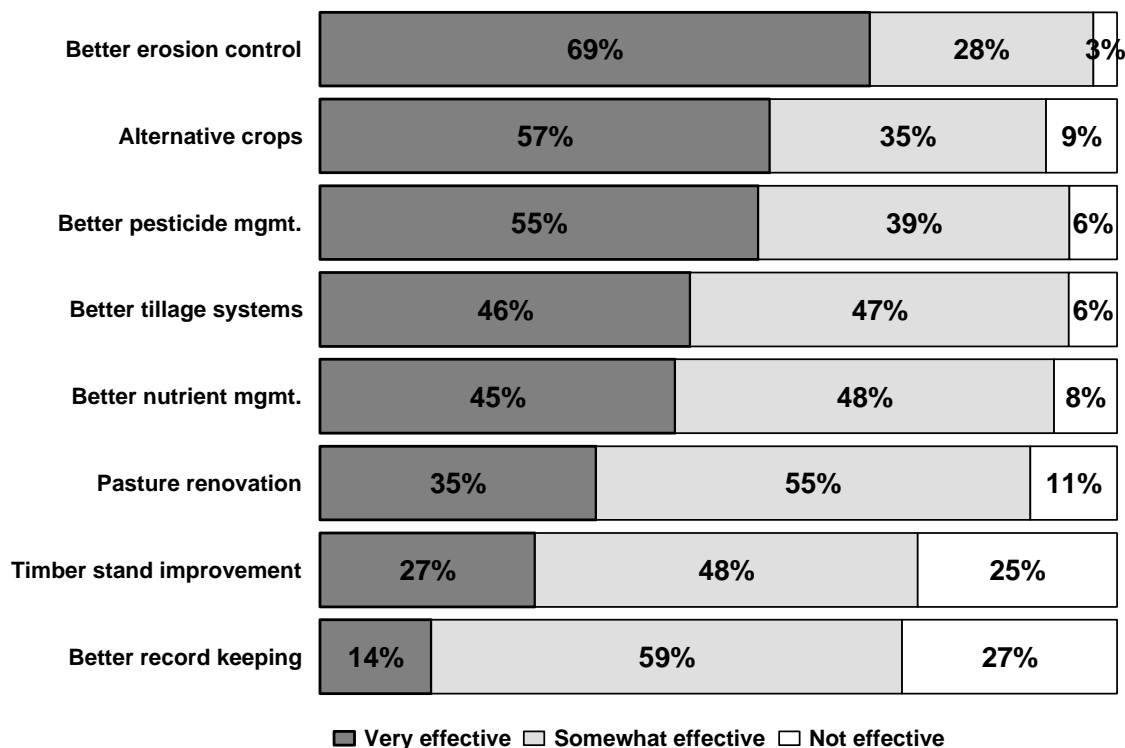


\* Indicates percentage indicating “very interested”

however, notable differences in others. In no instance did the large operators express greater levels of interest than the small operators.

Respondents were then offered a list of suggested ways to improve water quality in Rathbun Lake. For each they were asked to indicate whether that practice would be “very effective”, “somewhat effective”, or “not effective at all”. More than half of the respondents indicated they felt better erosion control management (69%), marketing of alternative crops (57%), and better pesticide management (55%) would be very effective in improving Rathbun Lake’s water quality (Figure 4). At least a quarter of the respondents indicated that neither better record keeping systems (27%) or timber stand improvements (25%) would be at all effective in improving Rathbun’s water quality. While timberland may have advantages for water quality over conventional row cropping, large scale conversion may not be a very viable alternative for

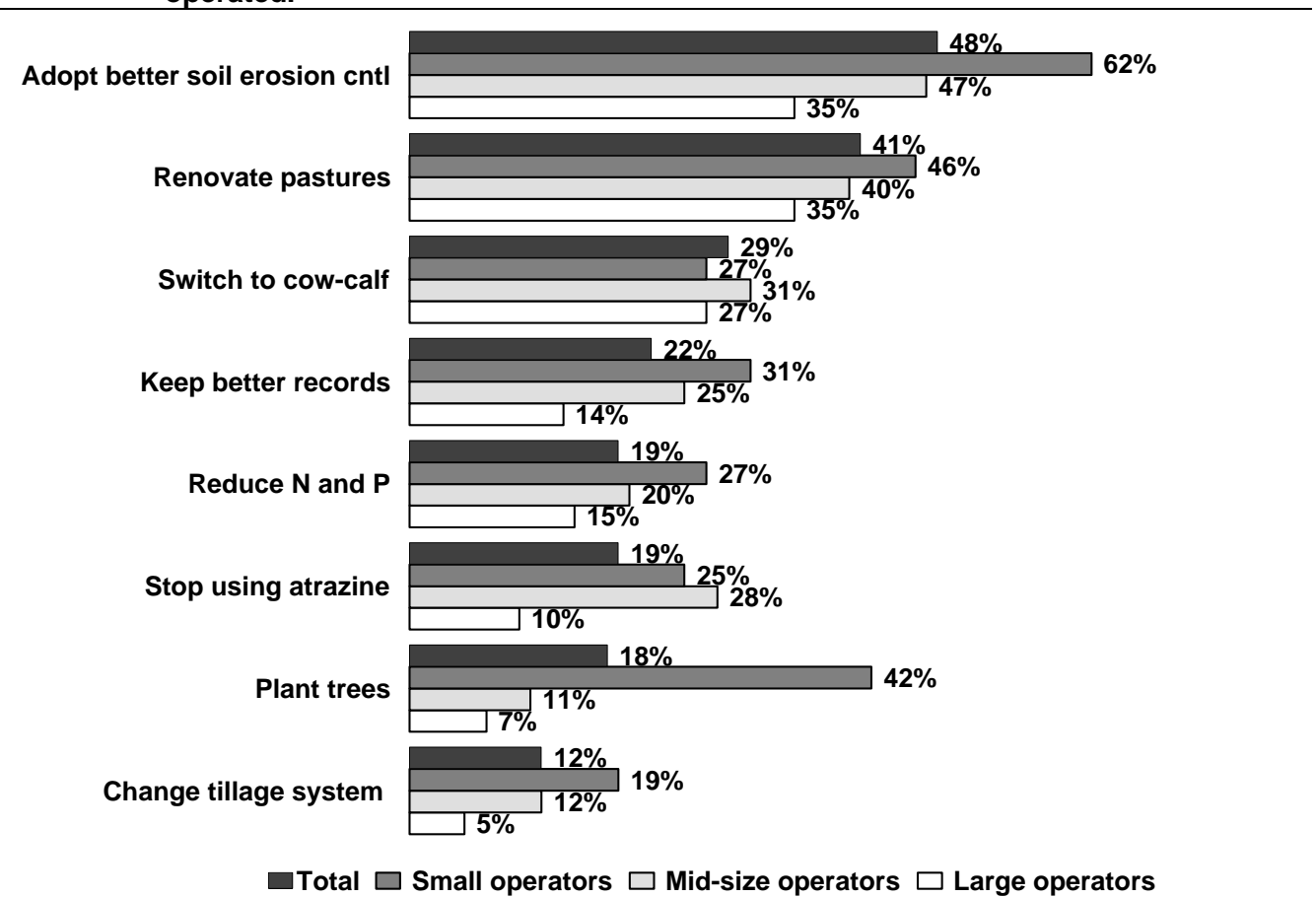
**Figure 4. Effectiveness of practices in improving water quality in Rathbun Lake.**



individual landowners. Record keeping would be useful for decision making, but in itself is only indirectly related to improving water quality.

With the exception of marketing alternative crops (54% to 60%) and adopting better soil erosion control methods (65% to 73%), both of which were deemed as “very effective” practices in improving water quality by the majority of operators across size of operations, there was little consensus on the perceived effectiveness of these general practices. Small operators were more likely to indicate practices as “very effective” than were mid-sized and large operators (Figure 5). The variations in answers by size of respondents’ operation suggest both opportunity and need to target certain educational messages and practices by size of operation

**Figure 5. Effectiveness of practices in improving water quality in Rathbun Lake by acres operated.**

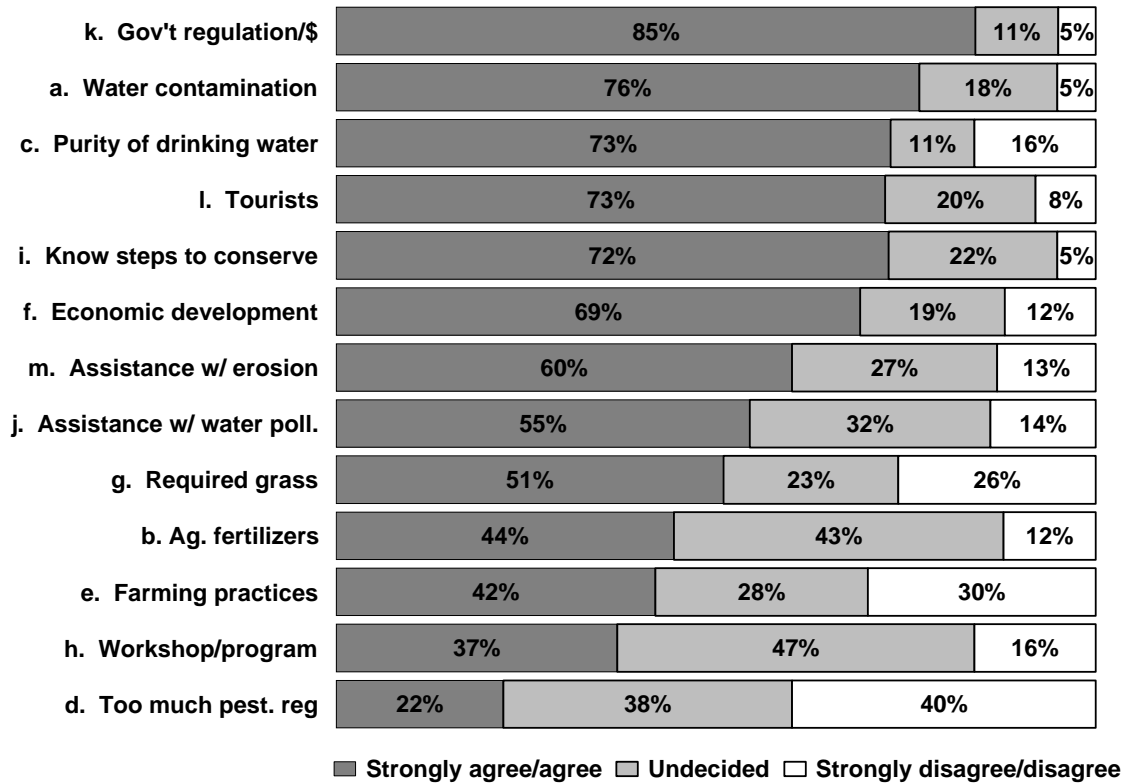


\* Indicates percentage indicating “very effective”

To explore their attitudes of water quality issues more thoroughly, respondents were given 13 statements and asked to indicate their level of agreement or disagreement with each statement. Most respondents agreed that if government regulations reduce productivity or value of farmland, the owner should be paid for this loss (85%), and that water contamination is an important environmental problem in the Rathbun Lake area (76%). More than half of the respondents also agreed with seven other statements (Figure 6). Conversely, more than a fourth of the respondents disagreed with three statements: we already have too much regulation on the use of pesticide (40%), farming practices and land use should be regulated to reduce pollution of surface water (30%), and to protect water quality, farmers should be required to plant grass along stream banks and waterways (26%). For four statements one-third to one-half of the respondents answered undecided. These statements read as follows: “I am interested in attending a workshop/program concerning how to protect Rathbun Lake” (47%); “Agricultural fertilizers have significantly contaminated water in the Rathbun Lake area” (43%); “We already have too much regulation on the use of pesticides” (38%); and “Farming practices and land use should be regulated to reduce pollution of surface water” (28%).

Although there were comparable levels of agreement (two-thirds to three-fourths) among respondents from the different sized operations on three statements (a, f, l), there were sizeable ranges of “non-agreement” for the other ten statements (Figure 7). Areas of consistent agreement were that water contamination is an important environmental problem in the Rathbun Lake area, that Rathbun Lake attracts tourists and businesses, and in turn that poor water quality of Rathbun Lake would effect economic development in Southern Iowa. Statements with less consistency in answers by size of operation involved requiring grass strips along stream banks and waters (g), agriculture fertilizers have significantly contaminated water in the Rathbun Lake area (b), farming practices and land use should be regulated (e), and there is already too much regulation on the use of pesticides (d). For the first three of these statements (b,e,g)

**Figure 6. Level of agreement/disagreement with given statements\*.**

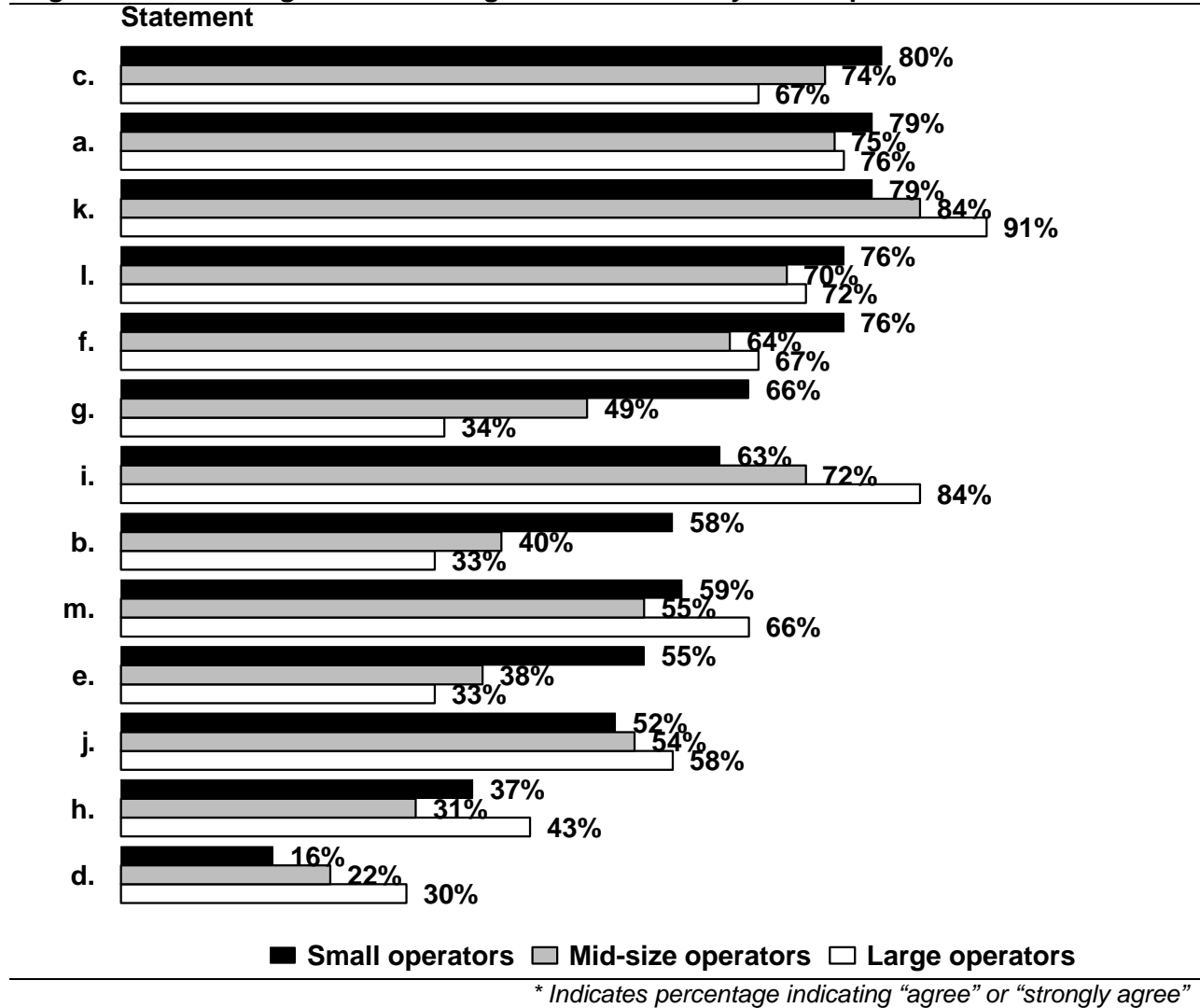


- Statement wording and order of sequence in the questionnaire were as follows:

- a. *Water contamination is an important environmental problem in the Rathbun Lake area.*
- b. *Agriculture fertilizers have significantly contaminated water in the Rathbun Lake area.*
- c. *I worry about the purity of my drinking water.*
- d. *We already have too much regulation on the use of pesticides.*
- e. *Farming practices and land use should be regulated to reduce pollution of surface water.*
- f. *Poor water quality of Rathbun Lake would effect economic development in Southern Iowa.*
- g. *To protect water quality, farmers should be required to plant grass along stream banks and waterways.*
- h. *I am interested in attending a workshop/program concerning how to protect Rathbun Lake.*
- i. *I know what steps to take to conserve soil and water.*
- j. *I am interested in assistance to help me reduce sources of water pollution on my property.*
- k. *If government regulation reduces the productivity or value of farmland, the owner should be paid for this loss.*
- l. *Rathbun Lake attracts tourists and businesses.*
- m. *I am interested in assistance to help me reduce erosion on my property.*

smaller operators were more likely to agree, for the last one (d), larger operators were more likely to agree.

**Figure 7. Level of agreement\* with given statements by acres operated.**



### INFORMATION AND EDUCATIONAL SOURCES

The organizations most commonly cited as primary sources of information when making farm conservation decisions were USDA Farm Service Agency (41%), Natural Resources Conservation Service (35%), Soil Conservation District Commissioners (29%), and farm magazines and publications (20%). In a separate question, 30 percent reported they were

aware of the Rathbun Land and Water Alliance. Of those, 18 percent (or 22 respondents) indicated they had used the Alliance as an information source.

When asked about their medium of information when making more general decisions for their farming operation, at least half reported using farm magazines (68%) and newsletters (50%) in the past year. At least 40 percent indicated face-to-face contact (48%), newspapers (45%), and informational meetings (40%) were sources of information for them over the past 12 months. Although farm magazines were identified as the most common source of information, they were not necessarily the most helpful. When asked to evaluate the value of those sources with regards to the helpfulness of the information received, more than half (53%) of those using face-to-face contact rated the information received as “very helpful” compared to only 22 percent for farm magazines. Although less commonly cited as sources of information, the information received from informational meetings (29%), field days (29%), and demonstration projects (27%) were also rated as “very helpful” by more than a quarter of those who had used them. At the same time, the information received from video tape presentations (38%) or Internet information sites and web pages (29%) were rated as “not helpful” by more than a fourth of those using these sources.

## **SUMMARY OF FINDINGS**

The findings cited in this report are based on the responses of 430 landowners/operators in the Rathbun Lake Watershed. Although the response rate is commendable, and the profile of respondents in several instances is close to known parameters for the watershed, the findings of the report should be interpreted cautiously as representing the landowner population as a whole.

Some of the highlights of this study, and possible implications of those findings follow.

- Farm Service Agencies and Natural Resources Conservation Services are the two leading sources of information for farmers when making farm conservation decisions.

Conversely, only 3 of every 10 respondents indicated being aware of the Rathbun Land and Water Alliance, let alone using the Alliance as a source of information.

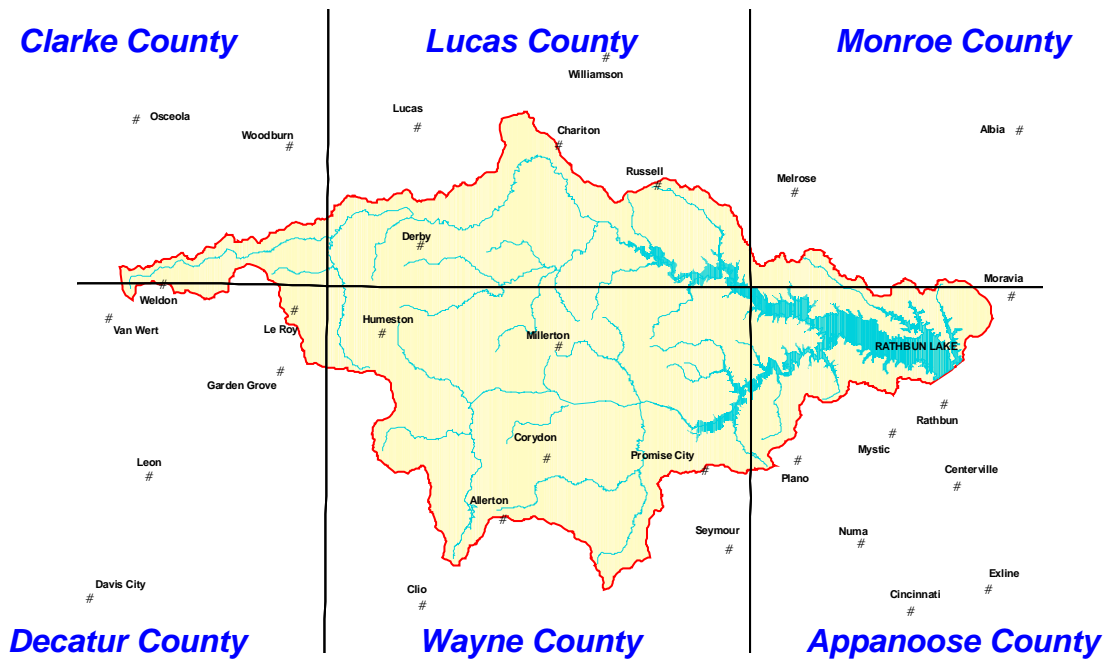
- Although farm magazines were identified as the most common medium of information among respondents they were not deemed the most useful. More than half of the respondents indicated that information gained through face-to-face contact was “very helpful” compared to only 22 percent for farm magazines.
- Row crop production constitutes more than a third of the farmland in the watershed. Incentives to compete with government subsidies for corn and soybean production need to be instituted. Furthermore, the 30,000 plus acres being released from CRP in the near future poses both opportunities and challenges so that future land use is managed in ways that maintain water quality.
- Although no-till is cited by more than a third of the respondents as their dominant tillage practice regardless of crop rotation (the exception being corn following corn), it is still second to spring tillage for 3 of the 5 rotations examined in this study. The balance between tillage practices and chemical usage is a worthy goal.
- Fully three-fourths of the respondents agree that water contamination is an important environmental problem in the Rathbun Lake area. And, seven of every 10 are concerned about the purity of their drinking water. About the same percentage, however, say they already know steps to take to conserve soil and water.
- The number of acres operated by the respondents ranged from 10 to 3,500. For many of the selected responses analyzed by the number of acres operated there were notable differences, both in attitudes and practices, between small operators (those with fewer than 200 acres) and large operators (those with 500 or more acres). These differences could be used to better target educational and informational efforts.
- Respondents were asked to comment on several questions. One was about additional conservation practices being used. Some 116 respondents (27.0%) commented. Another question asked for suggestions regarding farming practices in the watershed. To this question 148 (34%) respondents gave ideas from which the following themes were identified: land stewardship (n = 59), need of financial incentives and more government programs (n = 26), CRP and conservation programs (n = 25), and soil erosion prevention (n = 20).
- One issue not addressed directly by the survey but which drew several comments was that of large confinement operations and their effect on the environment. Decision-makers would be remiss if they did NOT include this issue in their BMP efforts.



Rathbun Land and Water Alliance

# Rathbun Lake Watershed

Percentage Distribution  
(N=430)  
Response Rate = 50%



## Land Use and Farming Practice Survey

IOWA STATE UNIVERSITY

University Extension

Ames, Iowa

June 2001

**Rathbun Lake Watershed  
Land Use and Farming Practice Survey**

Unless otherwise instructed, please circle the number that corresponds to your response.

**I. Farming Operations**

**1. How many of the acres you farm do you...**

Own ..... (n=406) Range = 0–3,500,  $\bar{x}$  = 323,  $\tilde{x}$  = 207  
 Rent ..... (n=189) Range = 0–2,250,  $\bar{x}$  = 330,  $\tilde{x}$  = 200  
 Total..... (n=408) Range = 10–3,540,  $\bar{x}$  = 474,  $\tilde{x}$  = 280

**If you rent, does the landowner dictate any management decisions for the time period that you farm the land? (n=138)**

Yes..... 29%  
 No ..... 71%

**If yes, what management decisions does your landlord make? (n=32)**

**2. In the crop year 2000, how many acres of the land you farmed were:**

Corn..... (n=249) Range = 0–1,200,  $\bar{x}$  = 144,  $\tilde{x}$  = 60  
 Soybeans..... (n=245) Range = 0–1,800,  $\bar{x}$  = 159,  $\tilde{x}$  = 60  
 Alfalfa hay ..... (n=225) Range = 0–500,  $\bar{x}$  = 67,  $\tilde{x}$  = 45  
 Grass hay or improved pasture ..... (n=277) Range = 0–1,140,  $\bar{x}$  = 114,  $\tilde{x}$  = 70  
 Permanent non-improved pasture .... (n=221) Range = 0–1,905,  $\bar{x}$  = 116,  $\tilde{x}$  = 78  
 Oats or other small grains ..... (n=102) Range = 0–211,  $\bar{x}$  = 24,  $\tilde{x}$  = 12  
 CRP ..... (n=224) Range = 0–2,000,  $\bar{x}$  = 136,  $\tilde{x}$  = 81  
 Timber ..... (n=179) Range = 0–555,  $\bar{x}$  = 49,  $\tilde{x}$  = 27  
 Other (produce, oats, WRP) ..... (n=8) Range = 2–85,  $\bar{x}$  = 29,  $\tilde{x}$  = 20

**3. Do you use Rathbun Regional Water for any of the following?**

	<u>Yes</u>	<u>No</u>
Livestock water ..... (n=402)	50%	50%
Cleaning livestock facilities ..... (n=335)	15%	85%
Cleaning machinery ..... (n=372)	43%	57%
Watering gardens or lawns ..... (n=380)	42%	58%
Crop spraying ..... (n=355)	28%	72%

**4. Where does your household drinking water come from? (Check all that apply.)**

	% ✓'ed
City water .....	(n=425) 10%
A private well.....	(n=426) 10%
The Rathbun Regional Water Association .....	(n=425) 72%
Bottled water .....	(n=425) 8%
Other (specify)_____ .....	(n=424) 7%

**5. How many head of livestock do you have on your farm in the following settings? If no livestock, please go to question 6.**

**Dry Lot**

Stock cows .....	(n=4) Range = 1–500, $\bar{x}$ = 142, $\tilde{x}$ = 34
Backgrounded calves.....	(n=24) Range = 3–160, $\bar{x}$ = 63, $\tilde{x}$ = 55
Cattle on feed .....	(n=9) Range = 6–120, $\bar{x}$ = 47, $\tilde{x}$ = 50
Dairy cows .....	(n=1) Range = 12
Sows.....	(n=2) Range = 1–8, $\bar{x}$ = 4, $\tilde{x}$ = 4
Pigs on feed.....	(n=3) Range = 2–300, $\bar{x}$ = 101, $\tilde{x}$ = 2
Sheep .....	(n=1) Range = 13
Horses .....	(n = 3) Range = 2-30, $\bar{x}$ = 14, $\tilde{x}$ = 9
Chickens.....	(n = 1) Range = 25
Other cattle* .....	(n = 3) Range = 4-14, $\bar{x}$ = 8, $\tilde{x}$ = 7

**Feedlot**

Stock cows .....	(n=0)
Backgrounded calves.....	(n=47) Range = 3–750, $\bar{x}$ = 107, $\tilde{x}$ = 75
Cattle on feed .....	(n=18) Range = 3–500, $\bar{x}$ = 103, $\tilde{x}$ = 40
Dairy cows .....	(n=0)
Sows.....	(n=0)
Pigs on feed.....	(n=2) Range = 4–60, $\bar{x}$ = 32, $\tilde{x}$ = 32
Sheep .....	(n=0)

**Pasture**

Stock cows .....	(n=224) Range = 4–650, $\bar{x}$ = 68, $\tilde{x}$ = 53
Backgrounded calves.....	(n=47) Range = 1–300, $\bar{x}$ = 53, $\tilde{x}$ = 25
Cattle on feed .....	(n=3) Range = 15–60, $\bar{x}$ = 30, $\tilde{x}$ = 15
Dairy cows .....	(n=3) Range = 1–3, $\bar{x}$ = 2, $\tilde{x}$ = 1
Sows.....	(n=3) Range = 24–85, $\bar{x}$ = 45, $\tilde{x}$ = 25
Pigs on feed.....	(n=8) Range = 50–2,300, $\bar{x}$ = 850, $\tilde{x}$ = 200
Sheep .....	(n=7) Range = 4–70, $\bar{x}$ = 31, $\tilde{x}$ = 30
Horses .....	(n=27) Range = 1–20, $\bar{x}$ = 7, $\tilde{x}$ = 5
Other cattle* .....	(n=7) Range = 2-45, $\bar{x}$ = 18, $\tilde{x}$ = 8

\* Other cattle include heifers, roping cattle, calves, steers and bulls.

**Building Confinement**

Stock cows .....	(n=0)
Backgrounded calves.....	(n=0)
Cattle on feed .....	(n=3) Range = 20–100, $\bar{x}$ = 53, $\tilde{x}$ = 40
Dairy cows .....	(n=0)
Sows.....	(n=0)
Pigs on feed.....	(n=5) Range = 50–2,400, $\bar{x}$ = 656, $\tilde{x}$ = 200
Sheep .....	(n=0)
Horses .....	(n = 1) Range = 5

**5a. From your *dry lot* or *feedlot* areas, which of the following methods are you using to control the runoff? (*Check all that apply.*) (n=430)**

- % ✓'ed
- 78% Do not have livestock in dry lot or feedlot areas
  - 2% Catchment lagoon or settling structure
  - 4% Farm pond
  - 14% Grass waterway, pasture, or buffer strip before runoff reaches a water system
  - 1% Terraced to a pond or other location
  - 0% Other (please specify) \_\_\_\_\_
  - 3% No control needed/No drainage

**6. Which of the following would you identify as your two primary sources of information when making farm conservation decisions? (*Please check no more than two.*) (n = 430)**

- % ✓'ed
- 29% Soil Conservation District Commissioners
  - 35% Natural Resources Conservation Service (NRCS)
  - 41% Farm Service Agency (FSA)
  - 2% Independent crop consultant
  - 8% Farm supply dealer field specialist
  - 14% ISU Extension Services
  - 13% Family member
  - 12% A farming neighbor
  - 5% DNR
  - 20% Farm magazines and publications
  - 7% Other (please specify) \_\_\_\_\_



11. Would you consider converting row cropland to hay or pasture if the per acre profit was the same? (n=344)

Yes ..... 79%

No ..... 21% → If no, please indicate the reasons why you would not change. (Check all that apply.) (n=73)

% ✓'ed

- 23% I have too much invested in row crop equipment
- 14% I do not have hay or cattle handling equipment or facilities
- 6% I do not have livestock experience
- 15% I do not want to raise livestock
- 26% I farm flat land that should be in row crop production
- 29% Government program options are more advantageous than livestock production
- 26% Other (please specify) (n=18)

12. In 2000, during which seasons did you apply fertilizer, and/or manure on the land you farm? (Check all that apply.) (n=430)

	<u>Nitrogen</u>	<u>Phosphorous</u>	<u>Manure</u>
	<u>% ✓'ed</u>	<u>% ✓'ed</u>	<u>% ✓'ed</u>
Fall .....	11%	14%	15%
Winter .....	2%	4%	11%
Spring .....	54%	48%	25%
Summer .....	5%	6%	11%

12b. What types of nitrogen did you apply? (Check all that apply.) (n=430)

% ✓'ed

- 21% Did not apply nitrogen
- 35% Anhydrous Ammonia
- 14% Liquid
- 39% Dry

13. In a normal crop rotation year, on average, how much commercial fertilizer do you apply to:

Pounds per Acre

**Corn Following Corn**

- N..... (n=69) Range = 60–250,  $\bar{x}$  = 140,  $\tilde{x}$  = 140
- P..... (n=59) Range = 20–100,  $\bar{x}$  = 57,  $\tilde{x}$  = 50
- K..... (n=59) Range = 20–125,  $\bar{x}$  = 65,  $\tilde{x}$  = 60

**Corn Following Soybeans**

- N..... (n=167) Range = 20–219,  $\bar{x}$  = 128,  $\tilde{x}$  = 125
- P..... (n=148) Range = 18–200,  $\bar{x}$  = 62,  $\tilde{x}$  = 60
- K..... (n=145) Range = 20–200,  $\bar{x}$  = 70,  $\tilde{x}$  = 60

**13. In a normal crop rotation year, on average, how much commercial fertilizer do you apply to: (continued)**

**Soybeans**

N.....	(n=13) Range = 5–23, $\bar{x}$ = 16, $\tilde{x}$ = 18
P.....	(n=33) Range = 10–125, $\bar{x}$ = 50, $\tilde{x}$ = 46
K.....	(n=42) Range = 10–125, $\bar{x}$ = 65, $\tilde{x}$ = 60

**Alfalfa**

N.....	(n=45) Range = 9–60, $\bar{x}$ = 28, $\tilde{x}$ = 20
P.....	(n=86) Range = 10–225, $\bar{x}$ = 52, $\tilde{x}$ = 46
K.....	(n=87) Range = 10–250, $\bar{x}$ = 80, $\tilde{x}$ = 70

**Improved Pasture**

N.....	(n=100) Range = 10–200, $\bar{x}$ = 55, $\tilde{x}$ = 50
P.....	(n=59) Range = 10–69, $\bar{x}$ = 27, $\tilde{x}$ = 20
K.....	(n=56) Range = 10–90, $\bar{x}$ = 32, $\tilde{x}$ = 20

**14. What is the most prevalent erosion problem on your farm? (n=328)**

Rill and sheet erosion.....	27%
Small gullies filled-in on a yearly basis.....	35%
Large gully erosion.....	12%
Stream bank erosion.....	17%
Other (please specify).....	9%

**15. What is your dominant tillage practice for corn and soybean production in the following rotations?**

	<b>No Till</b>	<b>Fall tillage, and Spring Leveling</b>	<b>Fall Subsoiling, and Spring Leveling</b>	<b>Spring Tillage Passes and then Plant</b>	<b>Other</b>
Corn following corn. (n=107)	29%	11%	6%	47%	8%
Corn following soybeans ..... (n=224)	51%	5%	3%	34%	7%
Corn following sod/ meadow ..... (n=118)	33%	32%	5%	26%	3%
Soybeans following corn ..... (n=214)	38%	10%	3%	41%	9%
Soybeans following sod/ meadow..... (n=141)	64%	14%	2%	14%	6%

**16. Who applies the majority of the following farm chemicals to your fields?**

	<u>You or a family member</u> % ✓'ed	<u>Your employee</u> % ✓'ed	<u>Custom applicator</u> % ✓'ed	<u>Other</u> % ✓'ed
Fertilizers..... (n=303)	30%	4%	63%	2%
Herbicides ..... (n=262)	26%	5%	66%	2%
Insecticides ..... (n=213)	32%	4%	62%	2%

**17. What factors limit adopting or expanding the following practices on your farm? (For each practice check all reasons that apply.) (n=430)**

	<u>Currently use</u> % ✓'ed	<u>Need more information</u> % ✓'ed	<u>It doesn't fit with my equipment</u> % ✓'ed	<u>It takes too much land out of production</u> % ✓'ed	<u>The practice is too expensive</u> % ✓'ed	<u>Not practical for my farm</u> % ✓'ed
Terracing .....	32%	4%	1%	1%	23%	19%
Contour farming.....	37%	4%	1%	1%	2%	23%
No-till.....	46%	4%	6%	0%	1%	11%
Conservation tillage .....	45%	4%	2%	0%	1%	11%
Contour filter strips .....	15%	11%	1%	6%	4%	21%
Vegetative filter strips along waterways.....	31%	11%	0%	6%	3%	13%
Hay production .....	59%	3%	1%	1%	2%	8%
Pasture renovation .....	40%	9%	0%	0%	5%	9%
Farm ponds .....	64%	5%	0%	1%	8%	4%
Timber stand improvement.....	15%	14%	0%	3%	4%	28%
Rotary hoeing for weeds in row crops.....	20%	4%	10%	0%	2%	24%
Cultivation for weeds in row crops.....	22%	2%	7%	0%	2%	24%
Banding of herbicides ....	7%	9%	12%	0%	1%	25%
Spot application of herbicides .....	19%	10%	7%	0%	1%	21%
Applying herbicides on the basis of an economic threshold .....	33%	11%	1%	0%	1%	14%
Use of post-emergent herbicides only as weed pressures emerge.....	37%	8%	1%	0%	1%	15%
Switching to a herbicide that does not contain Atrazine .....	20%	17%	0%	0%	6%	15%

Please comment on any other conservation practices you are currently using on your farmland.

(n=116)

## II. Educational Need

### 18. How effective do you feel the following practices would be in improving water quality in Rathbun Lake?

	<u>Not Effective</u>	<u>Somewhat Effective</u>	<u>Very Effective</u>
a. Better pesticide management ..... (n=366)	6%	39%	55%
b. Better nutrient management..... (n=343)	8%	48%	45%
c. Marketing of alternative crops (hay, organic, switchgrass, cattle, etc.)..... (n=357)	9%	35%	57%
d. Better record keeping systems..... (n=323)	27%	59%	14%
e. Better tillage system management.... (n=348)	6%	47%	46%
f. Better erosion control management .. (n=365)	3%	28%	69%
g. Pasture renovation..... (n=342)	11%	55%	35%
h. Timber stand improvement ..... (n=331)	25%	48%	27%
i. Other (specify) _____ ..... (n=38)			

### 19. How interested are you in adopting the following management practices to your farming operation?

	<u>Not at all interested</u>	<u>Somewhat interested</u>	<u>Very interested</u>	<u>Already adopted</u>
a. Stop using atrazine ..... (n=332)	18%	34%	12%	36%
b. Reduce nitrogen and phosphorous use ..... (n=333)	19%	44%	15%	23%
c. Switch to hay or cow-calf production..... (n=333)	22%	19%	17%	42%
d. Keep better records ..... (n=309)	23%	39%	18%	20%
e. Change tillage system..... (n=311)	31%	33%	9%	27%
f. Adopt better soil erosion control methods..... (n=339)	7%	31%	36%	26%
g. Renovate pastures..... (n=337)	16%	29%	32%	23%
h. Plant trees ..... (n=340)	44%	23%	15%	17%

20. In the past year, what sources of information have you used to assist you in making decisions for your farming operation? (*Check all that apply in Column A.*) For those that you have used, please indicate how helpful the information has been.

Column A (n=430)		<u>Not Helpful</u>	<u>Somewhat Helpful</u>	<u>Very Helpful</u>
<u>% ✓'ed</u>				
40%	a. Informational meetings .....(n=171)	12%	59%	29%
20%	b. Video tape presentations ..... (n=84)	38%	55%	7%
37%	c. Field days .....(n=154)	12%	59%	29%
25%	d. Internet information sites, web pages.....(n=103)	29%	53%	18%
27%	e. Demonstration projects .....(n=114)	16%	60%	25%
48%	f. Face-to-face contact .....(n=196)	7%	40%	53%
45%	g. Newspapers.....(n=182)	17%	69%	14%
50%	h. Newsletters.....(n=208)	10%	68%	23%
68%	i. Farm Magazines .....(n=278)	4%	75%	22%

21. Do you currently use any of the following information technologies in your farming operation?

	<u>Yes</u>	<u>No</u>
a. Digital/Cellular phone ..... (n=376)	57%	43%
b. Facsimile (fax) machine ..... (n=341)	26%	74%
c. Cable/Satellite/Digital TV ..... (n=357)	42%	58%
d. VCR ..... (n=363)	57%	43%
e. Personal computer..... (n=363)	56%	44%
f. Internet access ..... (n=352)	46%	54%
g. E-mail ..... (n=349)	44%	56%
h. CD-ROM..... (n=339)	32%	68%
i. Yield monitor on harvest equipment..... (n=337)	13%	87%
j. GPS (Global Positioning System) ..... (n=329)	7%	93%
k. GIS (Geographical Information Systems)..... (n=326)	3%	97%

### III. Attitudes

22. Please indicate your level of agreement or disagreement with the following statements.

	<u>Strongly Disagree</u>	<u>Disagree</u>	<u>Undecided</u>	<u>Agree</u>	<u>Strongly Agree</u>
a. Water contamination is an important environmental problem in the Rathbun Lake area ..... (n=409)	2%	3%	18%	38%	38%
b. Agriculture fertilizers have significantly contaminated water in the Rathbun Lake area ..... (n=402)	2%	10%	43%	29%	15%
c. I worry about the purity of my drinking water..... (n=404)	4%	12%	11%	38%	35%
d. We already have too much regulation on the use of pesticides ..... (n=402)	14%	26%	38%	17%	5%
e. Farming practices and land use should be regulated to reduce pollution of surface water ..... (n=402)	13%	17%	28%	29%	13%
f. Poor water quality of Rathbun Lake would effect economic development in Southern Iowa ..... (n=403)	3%	9%	19%	41%	28%
g. To protect water quality, farmers should be required to plant grass along stream banks and waterways ..... (n=405)	12%	14%	23%	34%	17%
h. I am interested in attending a workshop/program concerning how to protect Rathbun Lake ..... (n=393)	6%	10%	47%	29%	8%
i. I know what steps to take to conserve soil and water ..... (n=396)	1%	4%	22%	57%	15%
j. I am interested in assistance to help me reduce sources of water pollution on my property ..... (n=392)	4%	10%	32%	41%	14%
k. If government regulation reduces the productivity or value of farmland, the owner should be paid for this loss ..... (n=407)	2%	3%	11%	35%	50%
l. Rathbun Lake attracts tourists and businesses ..... (n=408)	1%	7%	20%	51%	22%
m. I am interested in assistance to help me reduce erosion on my property . (n=397)	4%	9%	27%	41%	19%

#### IV. Farm Operator Characteristics

**23. What is your age? \_\_\_\_\_ years → If you are 55 years or older, what are your plans for the farm once you retire? (n=223)**

(n=409)

Range = 22–94 years

$\bar{x}$  = 57

$\tilde{x}$  = 58

<45 years.....	22%
45-54 years.....	19%
55-64 years.....	24%
65 years.....	35%

Pass the farm onto a family member.....	38%
Rent the land to another farmer.....	8%
Have the land custom farmed.....	2%
Sell the farm.....	12%
No plans.....	34%
Other (specify) _____...	7%

**24. What is the highest education level you have achieved? (n=416)**

Less than high school.....	6%
High school graduate .....	44%
Some college/vocation school.....	28%
College graduate.....	22%

**25. In what county and township is most of your farmland?**

County	(n=422)
Appanoose .....	10%
Clarke .....	5%
Decatur.....	3%
Lucas.....	27%
Monroe .....	6%
Wayne .....	50%

Township 44 different townships

Zip codes 21 out of state, 60 Iowa zip codes

**26. Do you have any comments or suggestions regarding farming practices in the Rathbun Lake Watershed?**

(n=148)

***Thank you for your time!***



**...and justice for all**

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**APPENDIX A.  
RESPONSES (%) FOR SELECTED QUESTIONS BY NUMBER OF ACRES OPERATED**

<u>Question/Statement</u>	<u>Total (n = 430)</u>	<u>Small (&lt; 200 acres) Operators (n = 153)</u>	<u>Mid-Size (200-499 acres) Operators (n = 125)</u>	<u>Large (500+ acres) Operators (n = 130)</u>
<b>Question 8: In the cropping year 2000, how many times did you personally walk through your fields? (%)</b>				
Zero	13	18	14	5
1 to 3	34	42	30	31
4 to 6	26	16	33	32
7 or more	27	25	24	33
<b>Question 15: What is your dominant tillage practice for...(% no till)</b>				
Corn following Corn	29	50	19	28
Corn following Soybeans	51	56	36	56
Corn following sod/meadow	33	45	18	37
Soybeans following Corn	38	52	33	36
Soybeans following sod/meadow	64	68	47	71
<b>Question 19: How interested are you in adopting the following management practices to your farming operation?</b>				
a. Stop using atrazine				
Already adopted	36	50	39	24
Somewhat/very interested	46	37	45	55
b. Reduce nitrogen and phosphorous use				
Already adopted	23	27	26	16
Somewhat/very interested	59	54	56	67
c. Switch to hay or cow/calf production				
Already adopted	42	34	48	44
Somewhat/very interested	36	43	30	35
d. Keep better records				
Already adopted	20	21	18	22
Somewhat/very interested	57	52	51	64
e. Change tillage systems				
Already adopted	27	22	27	31
Somewhat/very interested	42	44	41	41
f. Adopt better soil erosion control methods				
Already adopted	26	28	21	30
Somewhat/very interested	67	63	69	67
g. Renovate pastures				
Already adopted	23	24	20	26
Somewhat/very interested	61	61	60	60

<u>Question/Statement</u>	<u>Total (n = 430)</u>	<u>Small (&lt; 200 acres) Operators (n = 153)</u>	<u>Mid-Size (200-499 acres) Operators (n = 125)</u>	<u>Large (500+ acres) Operators (n = 130)</u>
<b>Question 18: How effective do you feel the following practices would be in improving water quality in Rathbun Lake? (% “very effective)</b>				
a. Better pesticide management	55	70	50	43
b. Better nutrient management	45	53	48	35
c. Marketing of alternative crops	57	60	56	54
d. Better record keeping systems	14	23	9	8
e. Better tillage system management	46	55	49	35
f. Better erosion control	69	73	65	69
g. Pasture renovation	35	41	34	29
h. Timber stand improvement	27	45	20	14

**Question 22: Please indicate your level of agreement with the following.  
(% “agree or strongly agree”)**

a. Water contamination is an important environmental problem	76	79	75	76
b. Ag fertilizers have significantly contaminated water in the Rathbun Lake area	44	58	40	33
c. I worry about the purity of my drinking water	73	80	74	67
d. We already have too much regulation on the use of pesticides	22	16	22	30
e. Farming practices and land use should be regulated to reduce pollution of surface water	42	55	38	33
f. Poor water quality effects economic development	69	76	64	67
g. To protect water quality, farmers should be required to plant grass along banks and waterways	51	66	49	34
h. I am interested in attending workshops	37	37	31	43
i. I know what steps to take to conserve soil and water	72	63	72	84
j. I am interested in assistance to help me reduce sources of water pollution	55	52	54	58
k. If government regulation reduces the productivity or value of farmland, the owner should be paid for this loss	85	79	84	91
l. Rathbun Lake attracts tourists and businesses	73	76	70	72
m. I am interested in assistance to help me reduce erosion on my property	60	59	55	66

<u>Question/Statement</u>	<b>Total (n = 430)</b>	<b>Small (&lt; 200 acres) Operators (n = 153)</b>	<b>Mid-Size (200-499 acres) Operators (n = 125)</b>	<b>Large (500+ acres) Operators (n = 130)</b>
<b>Question 16: Who applies the majority of the following farm chemicals to your fields? (% "you or a family member")</b>				
Fertilizers	30	34	28	31
Herbicides	26	28	21	29
Insecticides	32	27	27	39
<b>Question 7: Are you aware of the Rathbun Land and Water Alliance? (% "yes")</b>				
	30	28	30	33

**RATHBUN LAKE WATERSHED**  
**Land Use and Farming Practice Survey**  
**Open-Ended Comments**

**Question 1C: If yes, what management decisions does your landlord make? (n=32)**

Crop Management (n=15)

- Has to stay in hay.
- What crops are planted.
- Rented (190 acres). Wants all land in hay and pasture.
- Fence lines, rotation of crops, improvements.
- The hay ground to be farmed and then reseeded.
- Some of the seed and herbicides.
- What to plant.
- Crop species, herbicide, and fertilizer.
- Amount in row crop.
- What crops can be planted.
- What we plant and where we reseed.
- Cropping programs.
- He keeps it in grass and hay.
- Use of grass waterways, crop rotations, permanent pasture on hilly ground.
- Crop rotation.

Other (n=17)

- General practices.
- Conservation steps, land stewardship decisions.
- Apply lime periodically.
- Cash rent some.
- Consultation – final his.
- We share about all the business decisions made.
- All management decisions.
- Spray.
- Just rent improved pasture in summer.
- Lime, earthwork, tiling.
- All.
- I crop share 50/50. We share all decisions.
- We no-till all crops.
- No-till.
- Follow SCS plans.
- Follow conservation plan.
- One half-share crop lease on 120 acres.

**Question 11: Other reasons for not converting row cropland to hay or pasture. (N=18)**

- CRP (n = 5)
- I need the corn.
- Not enough land.
- Profit on small farms would not be much better either way.
- We farm organic, need to keep rotating row crops.
- Depends on markets
- I could rotate some fields but already have poorest ground in pasture.
- Wildlife.
- All in timber.
- Age.
- Only cropping NHEL ground that would not have fence, water, or shade.
- I work during the day so baling hay in a timely manner would be impossible.
- Need corn silage. Already converted all land that I could to hay.
- I'm in CRP and want to convert to native prairie.

**Question 17: Please comment on any other conservation practices you are currently using on your farmland. (n= 116)**

Other Conservation Practices Currently Used (n= 50)

- I try to keep all land in hay or pasture, and fertilize hay after each cutting. Tried fall seeding last year, don't know it will turn out in 2001.
- We don't have hardly any erosion except one small gully which some pasture renovation might correct.
- Plant trees and native prairie grasses.
- I haven't planted any row crops for about eight years, but like to use conservation practices when it works for my operation and equipment.
- I have grass waterways.
- I'm building my organic matter content with wheat cover crop! I have filter strips along creek. I feel I probably have the most erosion-controlled farm in our water shed. No-till farming requires a much higher level of management. Many are not able to increase their management.
- We own, but don't know anything about farming.
- Help fill in and stop erosion in crop fields by feeding hay to cattle in any gullies during winter with no bale rings until gully is filled in, this practice is usually very effective.
- I would do more terracing if the cost-share money was more available.
- The 40 acres I own in the Rathbun watershed district consists of a stream, a timberstand, and unimproved pasture. I am very supportive of conservation efforts and interested in any programs that would assist me in developing a wetland in the bottomland or/and increasing my timber or native grasses. Other than the neighbor's cattle grazing a month or two each summer and a small organic garden plot, the land sees no farming practices whatsoever.
- We have always rotated crops on old farm and will continue on this one on the part we farm ourselves.
- Would use more tile if not so expensive.
- FSA is forcing us to no-till- if you no-till you can't cultivate and you have to put down some kind of pre-emergent. It also doesn't allow us to disc in erosion problem ditches
- All seeded down.

- Have used all that are checked.
- Hay, grass, cattle you have to work all year. A lot of farmers won't do it.
- Rotational grazing.
- Primarily all grass (all but 21 acres of 220).
- I have all 80 acres in hay or grass for hay purposes.
- Chariton Valley Biomass Project Participant, wildlife plots, 9 acre commercial timber plot.
- Own dozer and heavy equipment. I keep my land up. Such as tiling and terracing and waterways. Experience in farming, paying your own bills – makes good farm managers. FHA (Farm Home Loans) to people (not farmers) took away real farm management. FHA forgave their loans. This is what ruined good farmers. I feel a decent price on farm products would take care of most of the erosion problems and farm management problems. A good farm manager will take good care of his land. If there was any money to do so. No money no farm management.
- Would like to convert half of my land back to hay, pasture, cow/calf but need 5 year start up money.
- We do not row crop - have timber and row crop.
- No government plan for conservation practices. No corn base. Want to retire here but taxes are getting too high. Can't sell.
- The government pays only \$65.00 to \$75.00 per acre on waterways. I can get \$100.00 per acre farming myself. You do the math.
- Nothing else is effective.
- Would like to do more terrace and pond construction but profits are not in the operation to pay for them.
- Dropped outlets work great only need better cooperation between SCS and the farmers and landowners (we pay our part of the construction and have very little input into it). They are hard to work with and at their schedule.
- Tiled out a few wet spots so we could control weeds sooner and better.
- I have only very flat ground in row crop and that's only because it's too wet for hay production otherwise I would never grow anything but hay or pasture.
- Conservation of the soil was started by our father in the 1960's when he sowed various natural grasses over the farm. It hasn't been plowed since that time and it is strictly a pasture farm with grasses indigenous to Iowa, prairie grasses. It's good for the livestock.
- Other practices apply to row crop not applicable at our farm.
- I have 10 terraces with tile outlets, plus 2 diversion terraces.
- I rotate crops. Which saves more soil than any other program.
- Plant trees.
- Would like to rejuvenate pasture and hay ground. This farm raises no farm crops, uses no chemicals. Would like to see use of trees for erosion prevention.
- Have waterways that we maintain. We only use atrazine at ½ the rate we use to. Also less fertilizers that are safer for the environment.
- I have tile outlet terrace on all the land I have in row crop.
- We use no chemicals on our farm. We have no government or state ties to our farm.
- We have a pasture rotation plan in use.
- I use no herbicides or fertilizers. I keep weeds and grass growth to a manageable level by mowing.
- I have been progressively removing all of the hog facilities and returning the area where they stood back to grass. I have also buried and smoothed the area except the lagoon. I am just about finished.
- A lot of grass ways.
- No-till.
- Crop rotation.
- All I have is 20 acres, and 10 acres is pasture and hog and about 5 is pasture.

- I do not row crop and feel this does not apply. I have been seeded down for 33 years.

CRP or Seeded Down (n= 36)

- All land CRP (n = 15)
- CRP, prairie grasses.
- Built an earth dam and bulldozed in gully washes. Farm has been in CRP since 1987.
- We currently have most of our property in forest reserve and are putting in buffer strips along the riverbanks. We also have farmable acres in CRP and are looking for more government programs to get into.
- Partial CRP for 13 years.
- Above are pre-CRP practices I used.
- We don't do much to it. It's CRP switchgrass.
- All farm ground is currently in CRP. A good stand of grasses and legumes has been maintained and will be maintained.
- As long as I have majority of land in CRP it is seeded and cared for and weed controlled. Very few acres of rowcrop (flat land only) and other for pasture and hay.
- Our land is 240 acres in CRP. Another 80 acres are cash rented too. He makes all farming decisions on the 80 acres.
- Some in CRP now.
- All grass land.
- CRP and reseeding where needed.
- CRP acreage – erosion control grasses.
- As I have just purchased land. Have to look at each item this year. Land will be CRP (100 acres).
- Land in CRP – Pasture and hay currently no row crop am considering 1 yr. Soybeans for hay ground.
- Being that all of my land is in CRP and Timber I use no practices.
- Currently all hay, pasture, timber and or CRP. Plan no-till soybeans on 30 acres this year and maybe next to reseed.
- Since the biggest share of my farm is in CRP, some of the above practices do not apply.
- The farmland is presently under government conservation program. Other parts are rented for pasture and others for corn that renters manage independently.
- My farm is all seeded down. No row crops just graze cattle.
- Total farm seeded down – 4 acres to be seeded in the spring.
- I do not row crop and feel this does not apply. I have been seeded down for 33 years.
- Land is all seeded – plan to keep it that way.
- Most of my farmland is in alfalfa hay and pasture.
- My farm is entirely seeded down or forested. There have been no row crops for more than 4 years. Sometimes I buy cattle in the spring and sell them in the fall.
- My farm is pasture and hay ground.
- My farm is all seeded to hay and pasture. Rented property has only 13% in crop production. The 87% is in alfalfa and improved pasture.
- All hay and timber.
- All seeded down.
- My farm is all seeded down. No row crops just graze cattle.
- Total farm seeded down – 4 acres to be seeded in the spring.
- My farm is pasture and hay ground.
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- My farm is all seeded to hay and pasture. Rented property has only 13% in crop production. The 87% is in alfalfa and improved pasture.
- Conservation of the soil was started by our father in the 1960's when he sowed various natural grasses over the farm. It hasn't been plowed since that time and it is strictly a pasture farm with grasses indigenous to Iowa, prairie grasses. It's good for the livestock.
- All hay and timber.

#### Miscellaneous (n= 5)

- Some of these items are at the discretion of the renter.
- I do what I can and still make a profit.
- Wonder what's wrong with atrazine? Most of the fields are free of weeds except where I have some evergreens planted I am wanting to get some wind protection for our house. My husband's first love was working in the machine shop. He retired from farming when he was 65.
- Belief is strong in my opinion for soil conservation.
- Are there any left?

#### **Question 26: Do you have any comments or suggestions regarding farming practices in the Rathbun Lake Watershed? (n= 148)**

##### Land Stewardship (n= 54)

- Government controlled land should be made to follow the same rules that apply to me.
- Need a lot more seeded.
- Cooperation and education as to hardships and benefits of practices proposed. To all effected. Compensations or benefits for conservation and non-pollution practices. Penalties and deterrents for those who ignore them totally.
- I believe farming to the edge of Rathbun Lake on crop ground should not be allowed.
- Stop spraying with airplanes. The ASC is doing a damn poor job in Wayne County.
- Chemicals need to be banned by everyone. Let the farmer have some money for his product – not the corporations and chemical companies.
- We need to use less chemicals and better rotation of crops.
- I would love nothing more than to improve my land and help improve water quality. The trouble I have in today's markets is making a profit and keeping expenses down.
- Please work to educate these farmers on the advantages of organic growing. Higher prices for their product would mean less production needed. Not to mention it would solve the problem of fertilizer and chemical runoff contaminating the water supply.
- Row crop farmers should use grass filter strips more than they do. They need to cut back on fertilizers and pesticides and find a more environmentally friendly alternative.
- Needs to be more diversion dams and silt basins – they are more effective than terraces.
- We are very proud of the Rathbun Rural Water System. We are also aware that there are improvements needed in farming practices within the Rathbun Lake watershed.
- Need a lot more seeded.
- Would like to see more ponds being developed to ease (contain) erosion in Rathbun Lake Watershed. Ponds are practical and help establish wildlife habitat.
- Less farming and more pasture and hay.
- We need more ponds and terraces.
- Laws (farm plans) already are in effect to reduce sediments. However, they are NOT being enforced – i.e. chisel plowing HEL soybean fields and waterways being tilled, gully erosion in CRP acres.
- Keep them so the water will not be polluted.

- More grass and cattle less tillage.
- Water quality is most important – control contamination
- There will always be a lot of work and a lot of headaches. You will never please all of the people all of the time.
- I feel many people do a good job with their farming practices. However, there are some farms that I have watched and they have been row cropped for too many years and have no waterways left. As high as cash rent is, this makes the farmers farm from fence to fence to try to get all the acres they are paying for.
- Use no chemicals, pesticides, or herbicides whatsoever, and rotate row crop 2 years and then grass/pasture/hay 2 years.
- Farmland should not be farmed 25 or 30 years in a row crop. Soil above my land washes down and is spreading my waterways out till it crashes around them.
- I feel water quality is a very important issue but when practices and procedures are dictated by someone removed from the actual business of farming there are problems. With today's increased costs and even less profits how does one pay to make improvements? It scares me to think the day will come when rules in regards to my operation are imposed on me with no thought as to the outcome financially to my family. When will the fertilizer and chemicals put on yards and golf courses be regulated the same as we already try to do on the farms?
- Farmers need to be conservation minded in order to keep our lakes and streams free of silt and chemicals. We need to preserve our resources today for future generations of tomorrow.
- I would not eat fish caught out of Chariton Creek because it has smelled of chemicals strongly. Wife's note – alternative crops – hemp was formerly a legal crop in US and is legal in other countries [not the drug variety]. If what I have read is correct it is much easier to grow, etc. Any research on it?
- The few farmers in the Rathbun Lake Watershed should not be penalized for what the non-farmers (majority) perceive to be a problem. Increased regulations or surcharges.
- I've been wondering for years why something hasn't been done, after all we do drink this water. I have been farming here for 7 years, but was born and raised here. Some practices going on are just outright contrary to good common sense.
- The land that is government owned around the lake and low land near creeks should not be row cropped. In rainy season there is a lot of run off into creek and lake. Land should be seeded down several feet from creeks and lake. Approximately 5000 feet this is my opinion.
- I am 81 years old. Farmed all my life. Owned and operated 410 acres in Wayne county. Diversified cattle, hogs, sheep and row crops. I had five ponds, water run off from other farms. In the mid 70's you could walk around these ponds and have hundreds of frogs hit the water. In the 80's only one half dozen were seen. I love to fish, but I am afraid to eat the fish I take from these ponds today. Wake up and smell the coffee!
- My feelings are this - farming was here before Rathbun Lake. If the water treatment for rural water can't get us safe drinking water maybe we should go back to wells. I know this is just my opinion and all farming will be stopped in the watershed area but I think there will be a big court battle first where nobody wins.
- Less Chemicals. Raise water level to increase recreation activities – lake is silting in, we need wetlands in Iowa to slow silting. Area could be used for wetlands, etc.
- We should take a cue from the water quality legislation of the 1980's/90's which focused on how we can assure the quality of water (something we all know we need) rather than quarrelling over who is right about how to get quality water. The vested interests in "modern agriculture" are extremely powerful and seem to be threatened by critics. We need a fresh new approach to this important issue – one which challenges us all to do what we can for the common good.
- Do away with all farm programs and farm subsidies on farming. Your Rathbun water problems will all be solved. We don't need farmers putting chemicals on farm ground. Rathbun Lake Watershed doesn't need farmers farming the ground.
- We need good farm management. Farm managers must know by experience. Farm manager must know how to farm. This consists of knowing how to make a living for him and his family. How to pay

for the land, how to pay for farm equipment, then how to have enough to retire at a retiring age, and leave the land in a more human productive way than when he first started farming. It is absolutely impossible for a young man and his family to make a living at farming so there is no way to get a farm manager to take care of the land. Development of herbicide and insecticides were promoted and I'm sure a lot of the expenses were paid for by the government. There is not one complete farmer-man, wife or family- without help or work off the farm in the whole Rathbun Lake area. I don't feel the government should have to pay for anything that is causing Rathbun Lake a problem. Rathbun Lake was built by the government. Take away all farm programs and your Lake Rathbun problem can all be corrected without any farmers' help. Because there will be no part-time farmers or any farmers. Then you can have your recreation however you want it. I know you are not going to pay any attention or read this. I am the last of many farmers in this family. I'll try to help you clean up your government mess. Since the government has control of water in streams and the banks and they would like to keep trees along streams – when the stream become plugged with a drift or dammed from the falling trees. This causes the water to get out of banks quicker and causes high erosion across the low lands. I feel 100% it's the government's responsibility to remove the drifts as this causes a lot of drainage problems. Damages a lot of tile lines and many dollars of crop loss. All caused from government control.

- Not all contamination comes from farmers! Sometimes per square foot more fertilizer is put on in city people/s yards. Just one example.
- The contaminates are already in the soil, and in the lake sediment. I suggest building another lake below old lake and using old lake as a sediment basin.
- We try to take care of our land by rotation with crops and grass (hay). A lot of the pollution problem is these big operators that farm all over the country and don't worry about the water or ground.
- I think we all should do what we can to protect water quality in Rathbun Lake and all other water supplies.
- I would hope that you folks would push for (via lobbying politicians at all levels) a public-private partnership that would encourage land-owners to grow switchgrass or other alternative crops for the express purpose of using it at coal burning plants. I would think that this would be a true "win-win" situation. It helps the environment by reducing harmful emissions at the plants. It gives farmers a new cash crop that certainly wouldn't require the use of much fertilizer or herbicides. This would encourage erosion control on marginal land. Even those who have land signed into CRP should be allowed to grow these types of grasses or alternative crops. Keep up your good efforts on behalf of those within the Rathbun Lake Watershed!
- Farmer shouldn't farm 300 feet of the smaller streams and rivers that run into Lake Rathbun or the Chariton River. These areas should be grasses and trees to keep the chemicals out of the waterways.
- Most farmers are trying to protect water quality and erosion.
- All fertilizer and animal waste should be strongly regulated.
- Would like to know why the DNR issues licenses to hog confinement farms in the area?
- Please, can you limit hog confinements in any way? Or enforce an odor reduction plan? Is their disposal monitored in any way? I will not drink the Rathbun water since \_\_\_\_\_ polluted the lake with their runoff.
- In addition to control of herbicides/pesticides/fertilizers/ farming practices we need to eradicate factory hog farms, our biggest polluters.
- We need small farmers not the mega hogs.
- Stop \_\_\_\_\_ and other large hog confinements. Put hogs back on the farms of many instead of all one area. Pay for rotational grazing – incentives for having pasture. Use Rathbun Lake better; put in some hydroelectric and quit letting Clarke Electric take advantage of southern Iowa
- Keep confinement hog business out. We don't want our water ruined.
- I would suggest above all keeping the hog confinements to a minimum, and keeping the maximum animal (hog) number per farm below 200 or so. Feedlots should also be restricted. However, it is only fair that the farmers be reimbursed for any crippling of their income or hardship caused by this.

It wouldn't hurt to restrict tillage to minimum-till too.

- We believe there should be a restriction of not allowing any hog, cattle or poultry confinements allowed within 20 miles of any watershed used for drinking water, also the practice of incorporating manure or spreading manure in a 20-mile radius. These practices pollute the streams and air quality. The release of waste is unbearable for a week or so after for neighbors upwind.
- The public within 20 miles of the proposed confinement facilities should be allowed to participate in the permit debates, not kept in the dark about them until it is too late to stop the construction.
- We have two large confinements in operation at the mouth of Lake Rathbun in Wright Township in Wayne County at this time. The people in the area were not allowed any say in this process. Now we have to contend with the odor and danger of spills in our drinking water. We understand DNR had the final say, and allowed the confinements to be built. SHAME ON THEM. This should never have happened. This goes into Goodwater Creek and directly into Chariton River. Lake Rathbun's largest water source. These confinements that are in place should be required to plant shrubs, trees, and use odor control chemicals in the confinement. Shrubs and trees should be planted all around the confinement to make it more bearable for the neighbors. Trees should be planted all along the creeks and ditches and buffers to stop runoff. No more confinements should be allowed in this area. Our quality of life has been affected by this decision and we were not allowed to participate in making any comments or decisions.

#### Need Financial Incentives/ More Government Programs (n= 26)

- Because of tough times for farmers, farmers need carrots and sticks to effectively manage their land for off-farm pollution. Federal farm programs should require effective conservation to receive federal funds. Pay farmers to practice good conservation. Diversify the crops.
- Protect the beauty of the land, and use this as a basis for economic development.
- I think we need more tile outlet terraces with government help, paid fully by government.
- We should not have different regulations than any other farm in Iowa, or have regulations enforced any different.
- It's my land if they want to do something that I don't then buy it from me.
- More watershed funding 75% cost share for basins and terraces. Some form of funding for hay and cattle producers like the row crop producers collect.
- What is the DNR going to do with all of the deer and turkey?
- Like to see assistance in damming up large streams.
- Help keep cattle profitable. Help improve and develop more and better pastures. Use common sense in implementing these practices for cattle. Don't let outside politicians decide what we can do.
- Dislike regulation if not absolutely needed. Believe some absentee/investor landowners are not concerned about the future of the land and some who are trying to make a living need more assistance to implement good practices. Marketing skills and alternative possibilities education may be needed. Keep up the good work you are trying to do.
- We have farmed for 40 years and had a father who taught us the land is not ours it is here for our use and we better take care of it. He taught us about saving waterways, erosion control, and you don't plow it up year after year. You use the grasses for humus when you break ground for a new crop. His belief was 2 or 3 crops and then seed it down. I know this sounds old fashion and it is but it works. We try to comply with the SCS. and haven't had any problems. Guess that about says what I have to say.
- This Survey Stinks - eliminating what big government sees fit! In due time farming will be a crime in southern Iowa! Big government promotes big farms – which weed out small operators! We have participated in the CRP program for 14 years and still do. Farming in the area is being taken over with investors and BTO's. We have been conservationists in farming for all our life. All our land is terraced!!
- I have just finished reading this for the second time and still will not complete it. As for the lake it should be kept clean and mother nature will handle that program. We do not need the Federal Government, Iowa State, DNR (Dept Negative Results), or Army Corp of Engineers thinking for us.

- The Chariton River runs through my farm and I have done my part with the construction of eight ponds in last ten years where I raise catfish. No cost to the government. What – so – ever.
- The waste from these mega hog factories will eventually enter the lake. You handle that problem and I will take care of this 400 acres.
- Let the people who are down there now run that lake and keep the 40 hour a week welfare cases on the government payroll out of there.
- The state should regulate Federal programs to the states fullest interest, not regulate the farmers to the state's interest.
- Rathbun Watershed's quality problems are probably a result of action further upstream than I. However, the Army Corp of Engineers has once again overstated their capabilities. I suggest we adopt the EU method of paying farmers to adopt conservation practices at a profitable amount. The line of sign-up would be long and compliance complete. Threats and fines are not working. If the public wants clean everything – they need to pay. It is very simple.
- Straighten Honey Creek to stop flooding. Water needs to get away faster.
- If you want to change things then get your checkbook out and I will do whatever you are willing to pay for, but don't forget I bought this land and pay taxes on it so if you want to change my way, you pay!!!
- Could all road culverts leave a settling basin on its up side to slow run off and collect sediment? Replace all bridges possible with structures and ponds.
- I would like to have some reasonable compensation for leaving my 120 acres in grass.
- If we get any more idiotic environmentalist trying to run the county we won't have enough food to feed people here. I feel sorry for the young people today.
- I think crop-farming gets blamed for a lot of problems that is not the cause of.
- Unless you want to pay the taxes and payments on the land – stay out of it. The government has shown for decades it is unable to conduct control of farm practices successfully.
- Yes! The only reason for row crops on rough land is economic. Half the row crops would disappear if transitional money was available to convert to grassland for hay/grazing. Bankers forced many farmers to sell cattle and plow. Even when cattle prices were good. Half the land is cropped because short – term quick money is needed just to make farm payments or buy groceries. I would convert back now if farm payments and taxes could be maintained.

#### CRP/ Conservation (n= 25)

- The FSA office must be much more involved in the checking of tillage methods and the amount of trash cover left on tilled fields. The direction of tillage is very important to minimize rill and sheet erosion. I have proven that the past 28 years. All tillage must be done cross-sloped even though the field is planted somewhat different. It is always better to till any field a different direction than the planting. All farms should be checked at least once during each 5-year period. It would be better to hire checkers from the neighboring counties to do the checking on ATV's. They could check from April 30 – June 30 with a minimum of walking. Violators must be penalized on their payments. I believe these fines would be enough to pay all the costs of inspections. Talk to the county and state FSA officer and pursue these thoughts if you really want to control more of watershed erosion.
- All CRP. We have all our land in CRP but 19 acres. We have planted trees in 1/3 of the land. I know that there is much livestock farming in the Rathbun Watershed as well as grain. I know the pollution is high but have no idea as how to cope with it.
- Have a CRP program (or something similar) for everyone who wishes to participate. Reduce property and income taxes (Federal and State) to allow erosion/pesticide/herbicide reduction. Allow more benefits and assistance (financial and physical) for tree planting and to reestablish prairies. Strict controls on trespassing, and wildlife violators.
- All CRP.
- I would like to put it all in CRP.
- CRP program should have greater priority in watershed area. With bonuses paid for priority areas and practices.

- All CRP and timber.
- We need assistance in building farm ponds for soil erosion control. Also many gullies are opening up on CRP acres. Cost share is needed to control the erosion as well.
- More forages and better utilization.
- All cropland in warm and cool season grass CRP. Windbreaks have been planted.
- More CRP – Wetland Programs for Rathbun Watershed Farms.
- Most all of my ground owned is put in 10-year program over last two years in Wayne and Monroe.
- All of our farm is in CRP that is farmable. No farming. No livestock.
- All problems would be solved if hay, switch grass or cattle were made profitable permanently.
- Farm program to pay farmers to no-till. Change cropping requirements to enroll land in CRP more for equipment program.
- Need more of the land in hay and pasture.
- Damage to Rathbun Lake was done in the mid 70's and 80's before CRP. Any regulations to the farmer is a tax and US farmers can't stand any more taxes. The extreme high and low water levels of the lake did more damage than chemicals. Unless the farm income improves southern Iowa economics won't improve. Tourism and gambling boats won't do it.
- More water in ponds and more seeding down highly erodable land. More number 1 and number 2 CRP.
- My wife and I purchased the farm to keep it in the family. We have kept the same practice, CRP and rent the other for pasture. We are looking to build a barn or house in the near future. We have contacted people about getting rural water service. We are also checking the existing wells.
- More acres be put in CRP. Pay more per acre.
- I feel a lot of these farms around the creek are too hilly to farm. Should be put into a long-term program planted to prairie grass and get paid yearly for it.
- I feel the new farm bill being looked at should reward farmers who have kept their farms in grass and hay land instead of rewarding the row crop farmer who creates most of the erosion in the watershed area!
- I realize water quality is on everyone's mind. Compensation to landowners for turning the watershed into a state grassland. For example, restocking the area with native grass, bison herds. Making it a destination park would benefit all Iowa people. Is the cost/benefit ratio attainable?
- Keep the CRP payments high enough to ensure that contracts remain and raise them up according to what our country taxes are. In Wayne Co. the taxes are so high on farmland that they better raise the next contracts or there will be a decrease in contract members. Also mowing of CRP should be a must every year for every acre.
- More CRP.

#### Prevent Soil Erosion (n= 20)

- Need to promote no-till more with professionals who have really succeeded, e.g. National No-till Conference caliber. Too much tillage is still used. Need more research on no-till organic farming. Need more research on different types of fertilizer that we currently use. Fertilizer methods and materials haven't changed for 50 years! Use real science in EPA, Iowa DNR, e.g. myths about atrazine.
- Instead of having commercial companies encouraging farmers to apply the maximum of fertilizers, herbicides, and insecticides, the State or Federal Government should provide incentives and information to apply a reasonable minimum of these surface borne pollutants.
- Most farmers will adopt practices when instructed to do so, or when otherwise economically practical. Do you have any idea how to make a living on \$1.60 corn and \$4.40 beans?
- The only way you're going to begin to solve most of these problems with erosion is to cost share at 75%. I spent \$14,000 on terraces and pond repair in 2000 and the NRCS only shared \$4000. I would like to do the whole farm but there is no way to afford it.

- I recommend that southern Iowa be a place for the animals to roam and it's time to drill for oil too, because there is oil under Iowa land! Another idea would be to use southern Iowa for growing fresher produce for the U.S. and world market. Convert it into a vast garden, forest and/or grazing grounds for the animals. Build some windmills and harness the wind and then convert it to electricity.
- Put any conservation money into 75% share terracing.
- If you want to control the silt going into Rathbun you need to control it out in the area through dropped outlets and filter strips. Get the 75%-25% so we can afford to put the practices into use.
- I think no-till is the way to farm any Southern Iowa land. Also terraces and rotation on fragile land.
- The price we pay in taxes is high on the watershed. The landowner should not have to pay so much. Pass it on to those who use the lake.
- Accurate feedback databased supported by incentives US penalty based.
- Help in building ponds and terracing.
- No-till sure helps keep the soil on my farm. Cattle and hay would be the best answer to save the soil but there is no Federal help there!
- I would be interested in anything that would give the farmer a better return on his money.
- No-till fields need either tile outlet terrace or grass waterways to carry runoff water.
- Erosion is the only (main) problem for a watershed like Rathbun's. Not much run-off (or leaching) occurs on our high clay content soils, but erosion can carry inputs off-target.
- Promote Riparian Buffer program that's already in place. Most farmers don't know about it.
- Keep trying to convert all farmers into strip till or complete no-till. The reason this is almost impossible, because it requires much more management and brains.
- As I have just purchased land in Sept of 2000. I am interested in all programs that are related to land management.
- Filter strips should be mandatory.
- No-till farming enhances chemical and fertilizer runoff. We need to adopt new rules to stop this. Some of our chemicals and fertilizers need tillage to reduce runoff, which will also stimulate crop growth.

#### Miscellaneous (n= 23)

- I'd like to know more, especially as it might pertain to our farm near Melrose.
- Any and all help is appreciated. Any and all programs you can provide to help me improve erosion control and improve wildlife would be greatly appreciated.
- More input.
- No and Yes, we don't use it, yet wish it would have a better taste when we go other places especially in the summer. It doesn't taste good at all unless it goes through a purifier. Good Luck!
- I would like to visit with someone about what should be paid for when doing buffer strips, because our local FSA office has a problem with the rule on what should be eligible.
- Out of state- don't know much about farming, but believe soil and water conservation is extremely important.
- No, but if the drifts and log jams were cleaned out of the upper Chariton River it would help reduce the flooding and channel changing.
- It would be helpful if assistance were provided to farmers that are already in forage production to encourage them to stay in. If financial help was given to farmers to encourage them to keep their land seeded in hay or grass, this would probably help Rathbun water quality as much as anything.
- While I have completed the attached questionnaire, my direct input is probably not very significant as all of our tillable land is currently either enrolled in the Conservation Reserve Program (CRP) or leased to a Chariton area farmer. That farmer is in my opinion, one of the better farmers in the area, from the standpoint of soil conservation.
- I grew up on a farm in an area of West Central Iowa, which was somewhat rolling and where there

was a considerable amount of soil conservation practices such as grassed waterways and crop rotation. I literally watched in horror as \_\_\_\_\_ instituted his scorched earth policy of fence row to fence row production. The negative impact of soil and water quality was devastating. In 1992 we acquired our first land in Southern Iowa. I was attracted to the area because it reminded me of what my area of West Central Iowa looked like before it was devastated. Unfortunately I see the same type of problems are caused by poor farming practices and ignorance, as opposed to any formal government policy.

- From the period beginning in 1992 until the present, we have instituted a number of soil conservation practices on our land. The vast majority of these involved land that was enrolled in the Conservation Reserve Program (CRP). The practices involved the construction or improvement of 40 ponds, reshaping and reseeding of several miles of grass waterways, and the building of over 200,000 feet of terraces. In the fall of 2002, we will have completed what we consider to be all the required soil conservation practices on our Lucas County land. We have personally borne the entire cost of these improvements (over \$1,000,000) ourselves. We have been required to do this because most of the land was in the CRP and because of the total lack of cooperation from the Lucas County NRCS office.
- The majority of our land is located in Lucas County. What I see as the biggest impediment to any attempt to improve water quality in Rathbun Lake is the sheer incompetence and total unwillingness of the Lucas County NRCS personnel to offer or provide ANY assistance with soil conservation practices. In our situation, despite the fact that we were paying 100% of the cost, the Lucas County NRCS would not even provide assistance in laying out terraces. In one situation, a terracing project, on CRP ground, was delayed for three years waiting for Lucas County to simply lay out the terraces. In the end, representatives of Decatur County were kind enough to come up to Lucas County and stake the terraces. All the soil conservation work we have done in the last 4 years, in excess of \$500,000, was with the assistance of Decatur County. The only way the Lucas County NRCS will assist on a project would be where it could be done from the office with no physical effort.
- Unless the Rathbun Land and Water Alliance can educate local farmers as to farming practices that are more friendly to the land and more importantly, find some government agency that has both the competence and desire to implement soil conservation practices, you are flogging the proverbial dead horse.
- My farmland is not in the Rathbun Lake Watershed. We use water from the Little River Lake
- I am selling the farm in Wayne County because I can't keep up with interest on money borrowed for conservation practices. I have built eight ponds and raised fish.
- I'm not so familiar yet in the area. The land I have is a partnership with my cousin who lives in Iowa. He manages the land and he just keeps me informed. I'm in the military and I'm not involved so much on management. I just visit the farm once a year.
- How do you get rid of multi flora rose and locust trees?!!!
- Not really – don't feel smart enough to ask certain questions
- We may be planning to plant 3.5 acres of sweet corn. Want info on avoiding chemical use. Rotation recommendations?
- I do not farm any land in the Rathbun watershed. All my land is in White Breast water shed.
- I think the things you are doing are good.
- I filled out the questionnaire for the acres that flow to Rathbun Lake. I also have acres farmed that flow to Red Rock.
- Farmers are not stupid.