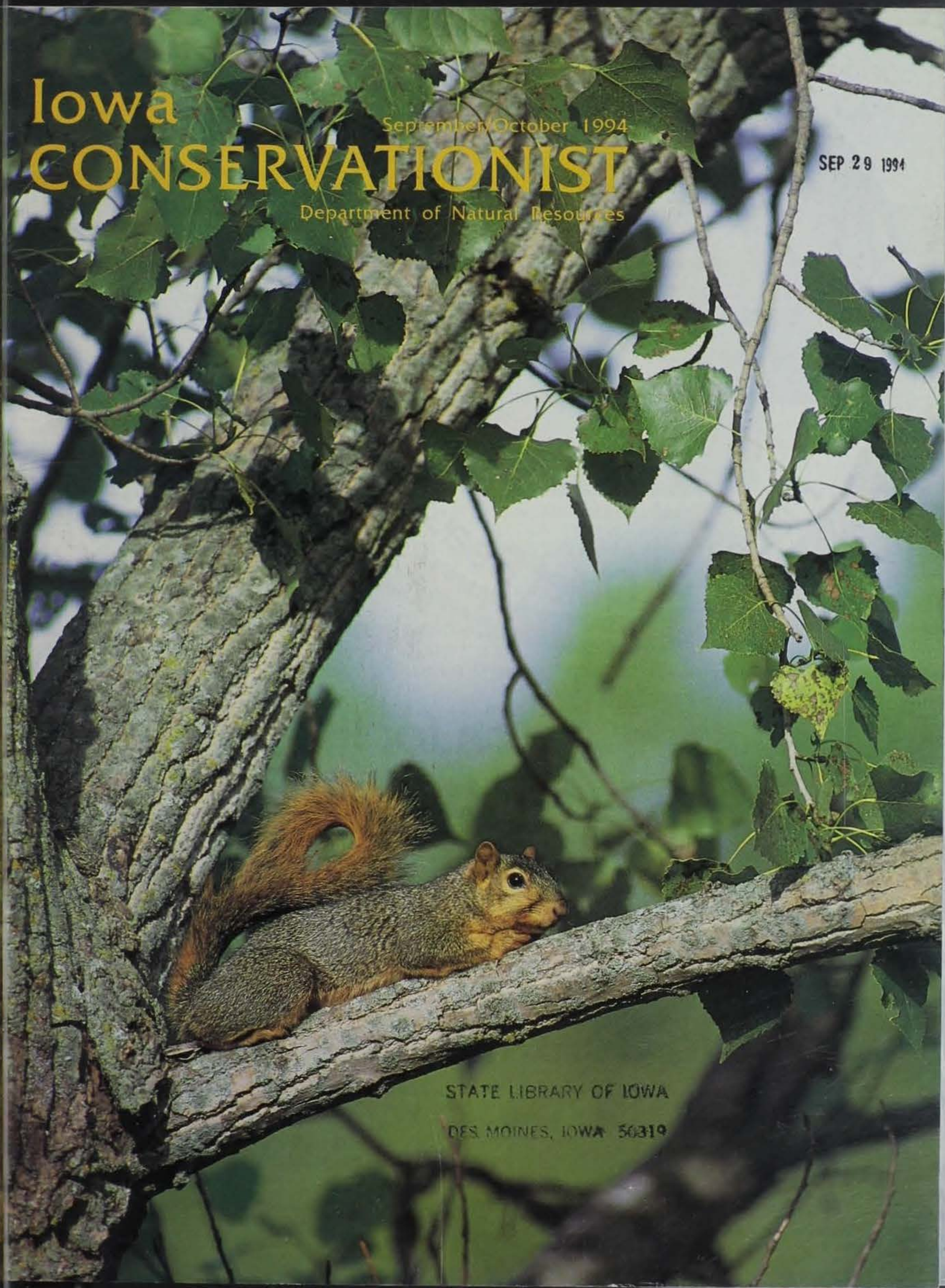
Iowa CONSERVATIONIST

September/October 1994

Department of Natural Resources



Watch for the Special
75th Anniversary
Tribute to Iowa's State
Parks in the January/February
1995 issue of the
Iowa Conservationist.

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SPECIAL PHONE NUMBERS
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HUNTING OUTLOOK

This is going to be a ***good*** hunting season, maybe even better than good! There's my prediction -- no hedging, no equivocation, no if*s*, and*s*, or but*s* (well, maybe one or two).

Why am I so optimistic? Because starting last September, our part of the world has finally had a typical weather year. The winter was cold and snowy where it was supposed to be -- in the Dakotas, Minnesota and the prairie provinces of Canada. Heavy snowfall and abundant spring rains have produced the best prairie marsh habitat conditions since a decade-long drought began there in the early 80s.

In Iowa, the spring and early summer have been unbelievably nice. For the first time since 1987 the weather hasn't been too hot, too dry, too wet or too cold during the nesting season. And NO FLOODS. This is Iowa as it's supposed to be!

So no excuses, all you mallard, teal, pheasant and turkey hens. Don't let me down. Yes, there are lots of raccoons, skunks, foxes and coyotes out there looking for a tasty omelette or fricassee of duck, but there are every year. With good habitat and excellent weather, you ought to be able to overcome those problems and churn out millions of young birds. Get busy. We're counting on you!

Most of the surveys that wildlife biologists use to predict waterfowl and game bird populations haven't been completed or analyzed yet (I said there might be a hedge or two). But, let's take just a brief look at what we might expect. More information will have come out since this was written to confirm (I hope) these predictions.

Upland Game

Pheasant hunters found a lot more birds last fall than anyone predicted (*see accompanying article on page 6*) and there was an excellent carry-over of brood stock through the winter. Quail, partridge and turkey populations should be in similar shape. Informal reports from DNR field biologists, farmers and the public indicate there is a massive pheasant nesting effort underway. Lots of pheasant broods are showing up along rural roads. Quail, partridge and turkey broods typically aren't very visible until August, but some are already being reported and they should have done a lot better than last year, also. (*See DeWaine Jackson's accompanying article on the outlook for renewed fall turkey seasons.*)

Rabbit and squirrel numbers don't vary much from year to year and will provide excellent hunting once again. Ruffed grouse numbers are starting to recover from their cyclic lows in the Great Lakes states and Canada, so Iowa's grouse should begin improving too. Complete recovery normally takes three to five years, but things are moving in the right direction.

Will this be a very good pheasant and quail hunting year? Probably. Will it the best year ever? Probably not. Weather in the fall affects crop harvest. Weather during the hunting season affects hunters' enthusiasm.

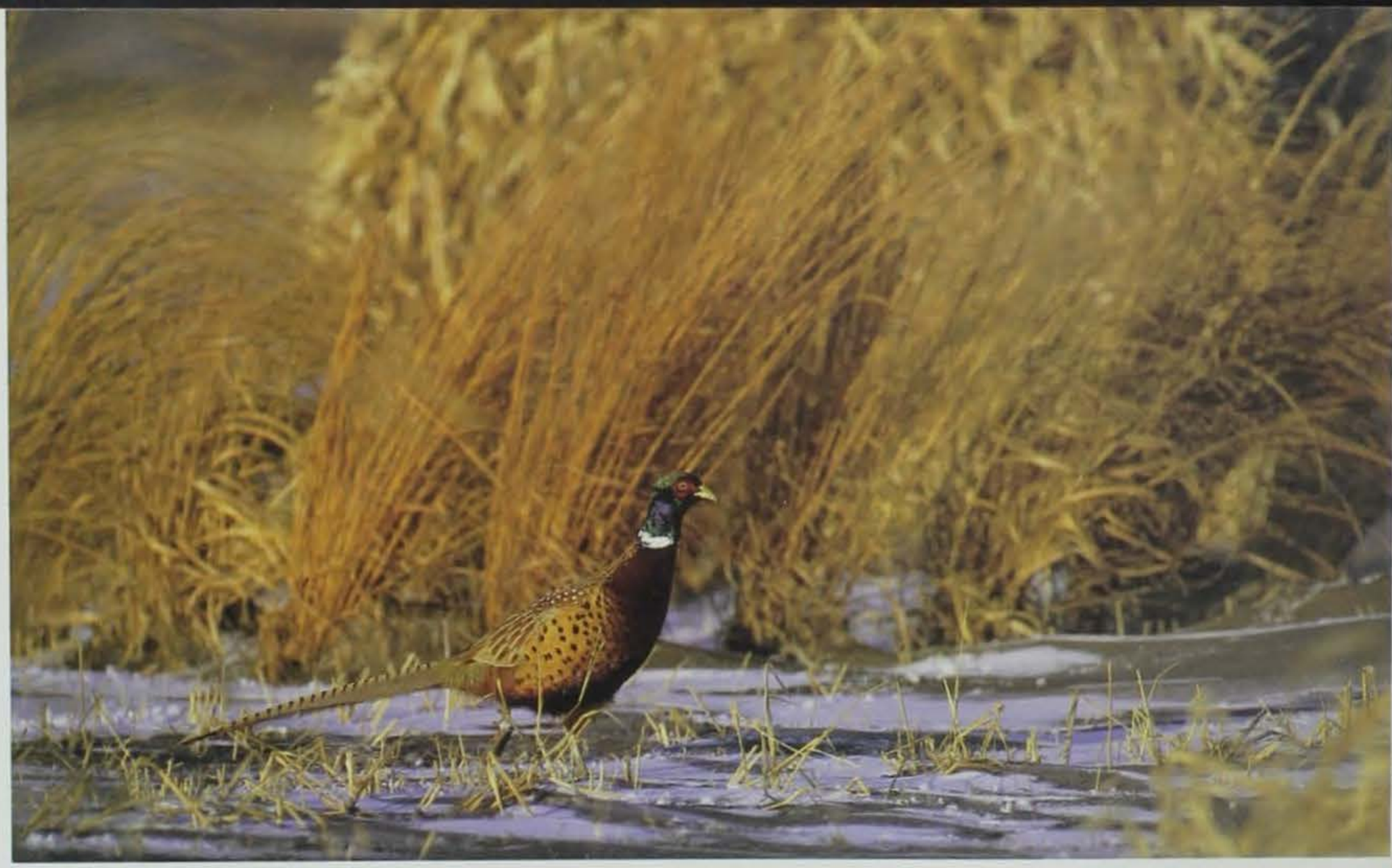
1993 Hunting Statistics

Upland Game	Hunters	Harvest
Pheasants	166,300	1.2 million
Quail	49,300	201,500
Gray Partridge	14,900	24,600
Ruffed Grouse	2,200	1,600
Woodcock	2,200	1,200
Squirrels	62,200	439,500
Rabbits	67,300	337,900
Wild Turkey	2,200	900
Waterfowl		
Ducks	23,000	197,200
Snow/Blue Geese	NA	19,200
Canada Geese	NA	16,800
Rails	450	*
Snipe	1,400	1,100
Deer		
Youth Season	1,600	650
Bow Season	29,000	9,100
Early Muzzleloader	6,600	2,200
Late Muzzleloader	5,300	2,100
Shotgun season	107,900	61,000

* None reported

by Terry W. Little

Lowell Washburn



Roger A. Hill

1993 Pheasant Season Best in U.S.

How could 1993 have been a banner pheasant year? A hunter that suffered through last summer's monsoon-like weather would probably have bet that pheasant hunting would be poor, at best. Hunters responding to the DNR's Small Game Survey, however, said that that bet would be lost.

In early summer the outlook was bleak. Rains blanketed Iowa nearly every day in the critical May-July nesting season. Knowing that nests in low-lying areas must have flooded, and that wet, cool weather can spell doom for newly hatched chicks, none of the DNR's experienced wildlife biologists could find anything positive to say about the prospects for even an average hatch.

The August roadside surveys confirmed these fears -- pheasant counts were down 30 percent statewide, and, except for an increase in sightings in southwest and west-central Iowa, the problem occurred everywhere in the state. Resident and nonresident hunters stayed away in droves, responding to DNR predictions of mediocre hunting, and to national media coverage depicting Iowa awash in flood water from border to border. Pheasant hunter numbers decreased 20 percent to around 160,000, the lowest since 1963. A banner hunting year seemed less likely than a Cubs-White Sox World Series.

When the DNR's post-season hunter surveys were completed, however, a very different picture emerged. Upland game hunters reported taking about 1.2 million rooster pheasants, 200,000 quail, 25,000 gray partridge, 334,000 rabbits and an abundance of other small game. These figures were up 10 to 30 percent from 1992, with Iowa just edging out South Dakota for top honors in pheasant harvest. How could this be?

The first indication that things may be better than expected came from DNR biologists and Iowa State University students conducting a pheasant research study in Kossuth and Palo Alto counties. Hens carrying miniature radio transmitters nested later last summer than any year for which information is available. Instead of hatching out broods in early June, most hens simply sat out the early rainy period and nested in July or August. Many hens were still on the nest when the early-August roadside counts were conducted, or had broods that were too young to be consistently visiting roadsides. Thus a normally reliable survey gave an uncharacteristically poor indication of what hunters could expect to find. Hunters reported seeing very young, partly-colored rooster pheasants as late as the middle of the hunting season, confirming that an unusually late hatch must have occurred.

After mid-summer, events turned in a more positive direction for pheasants and hunters. Late-planted crops matured slowly in the cool, wet weather and many fields still had standing crops on opening weekend. Pheasants were less vulnerable than usual and early-season hunting was poor in many areas. This, however, saved many birds for

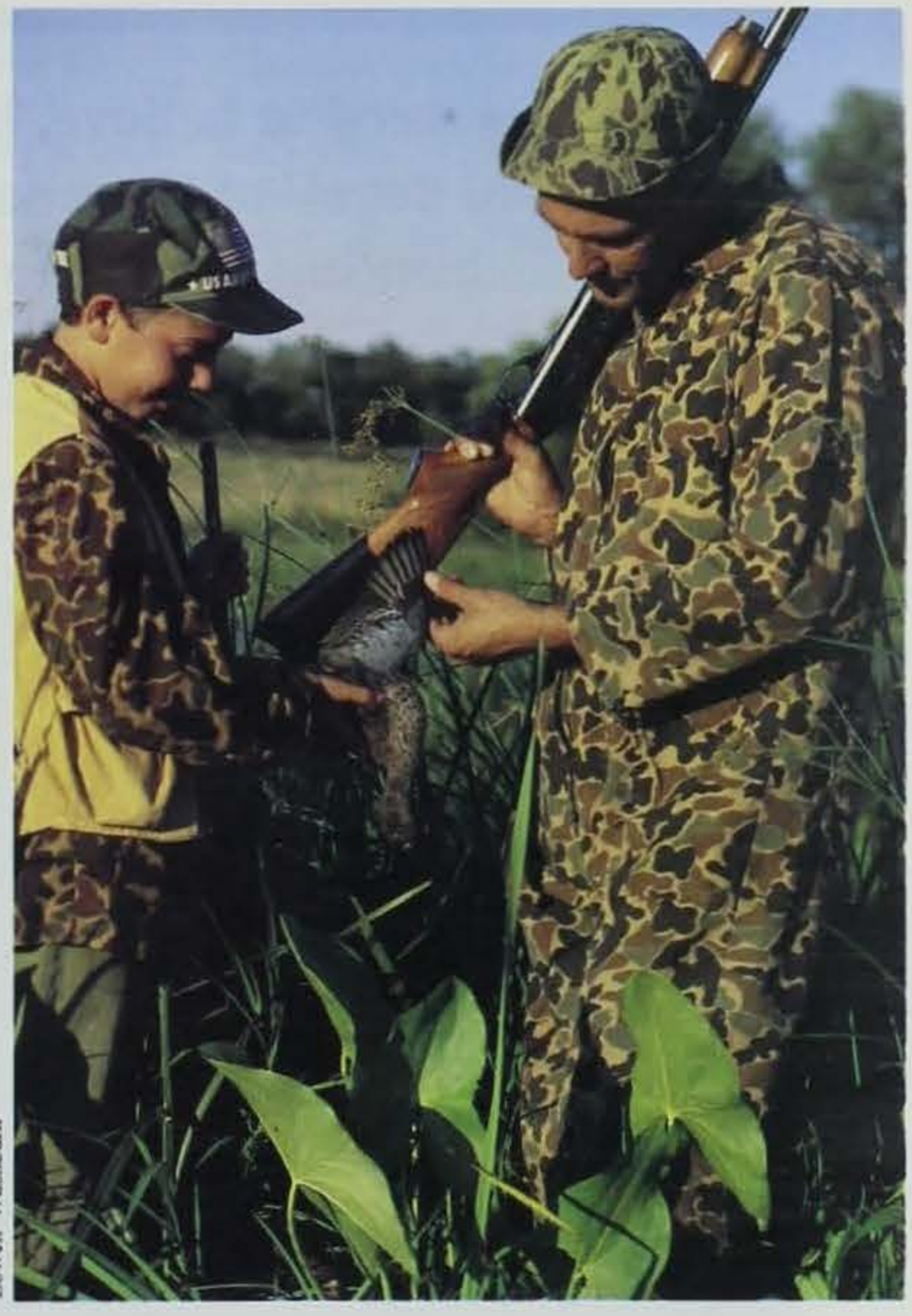
Both are unpredictable. But the birds ought to be there, whatever else happens.

Waterfowl

For the first time in a decade truly encouraging news is coming out of the U.S. and Canadian prairies. The ducks have responded to better habitat conditions. U.S. Fish and Wildlife surveys show substantial 11 to 45 percent increases in breeding numbers of all major duck species. Blue- and green-winged teal, gadwalls and northern shovelers are all above their long-term average breeding levels. Mallards, widgeon and redheads are back to average. North Dakota, Minnesota and Wisconsin had record or near-record numbers of breeding mallards. Only pintails and scaup are still below average and they are way up from last year. Midsummer brood surveys showed production was good and the fall flight should be up 20 percent.

Where did all these ducks come from? Hunters should feel better knowing that the restrictions in hunting days and bag limits that were imposed on them the last eight years have accomplished their purpose. Many ducks that could have ended up on a hunter's dinner table are instead alive to help bring back duck populations much faster than would otherwise have happened. These ducks left the prairie breeding areas during the drought, but have returned in force now that conditions are starting back towards normal.

Duck populations won't fully recover in just one year, but season will be liberalized somewhat to take



Lowell Washburn

ıe persistent late-season hunter. And ɔr the first time in three years, 'eather was excellent throughout the unting season.

An unexpected abundance of heasants, excellent mid- and late-ɛason hunting condi-ons and fewer hunters ɔmbined to make 1993 memorable year for ıose that stuck with it. ome hunters reported ıeir best year in a ɛcade. The average ag was about seven heasants apiece for the ɛason -- the best on ɛcord. Hunters in ɔuthwest Iowa found ıe excellent pheasant unting predicted there, ıd bird numbers in ther regions were not s bad as feared. All ıings considered, it 'as a more-than-leasant surprise after ıe floods of '93.

-- TWL

Lowell Washburn

It may be hard to believe, but the "good old days" of Canada goose hunting are yet to come.

Canada Goose Hunting in Iowa -- A Rising Star

by Guy Zenner

The eastern sky faintly hinted at the coming dawn as we trudged, burdened with guns and decoys, toward a small pond along the Winnebago River. The little marsh was as smooth as glass, except for a tiny spot in the middle that forecast a northwest wind. Our goose decoys splashed noisily onto its ebony surface, shattering the predawn silence and sending ripples across an October moon. The air was crisp with anticipation and the grass wore its first white fringe of autumn. Marsh wrens scolded our intrusion and blackbirds chattered noisily as they massed on cattail tops for their morning flight. The decoys turned to face an intruding breeze, tugging anxiously at their anchors. The distant call of a Canada goose momentarily halted activity as we silently speculated on the morning's prospects.

Suddenly a group of geese was upon us, calling and splashing down among the counterfeits. The spread apparently looked good in the predawn light. Only time would tell if the picture we painted would be good enough to fool a goose come day. We sat back to wait and watch, and tipped our hats to the departing group when they grew tired of the one-sided conversation and left in search of more social company. The sky began to lighten as brittle rushes started to dance, and goose music floated down the river from flocks awakening to the north. The day promised to be a good one.

Just as the sun began to peer over the horizon, distant calling swelled from the south. Moments later the flock was in view, winging their way up the valley. It was a big flock, too big for our small pond I thought, but when they came into calling range, we hailed them anyway. They turned to take a look. We picked up the calling, increasing the tempo as we urged them on. Over the top they went, a 100 yards up, talking constantly. Pleading with come-back calls, we enticed them into another look, and then another. Finally, they let the breeze carry them downwind. Now they were only 70 yards up, swinging into the wind and pumping their way towards our set-up. Winded, we desperately tried to keep up the conversation. They looked serious now. They were going to take a close look, a very close look. In between gasps for air, I whispered to my companions to get ready. Too many eyes, I thought. If we don't get them in this time, they will know they are being duped. Then the lead bird committed, cupping its wings and sliding into the wind. Encouraged, we called excitedly. Down the others followed, tipping and turning to hasten their fall. Seventy yards, 50 yards, 30 yards -- they closed the gap. Then, only feet from the water, the lead bird sensed something and began to rise. When they topped the decoys less than 20 yards out, we stood to take them. As the giant Canadas clawed for altitude, three guns barked and three birds tumbled into the decoys.

A once-in-a-lifetime experience? Not long ago it was. But today, goose hunters all over Iowa have similar experiences. And not just once a season, but for some, several times a season. It is an experience that the Iowa Department of Natural Resources would like to see more hunters have. And, it is an experience that did not come about by accident.

Since 1964, the IDNR had been working diligently to restore the giant Canada goose to its former nesting range in Iowa. As a result of that effort, Iowa now produces more than 20,000 giant Canada geese on its rivers and marshes; 30

Roger A. Hill

anadvantage of good production this year. The season will probably be 40 days, but the bag limit will still be three ducks. Iowa's September duck season will be reinstated in the north hunting zone.

Geese are also in excellent condition. Iowa produced 30 percent more young Giant Canada geese this spring than last year's all-time high. Arctic-nesting snow and Canada geese responded to an average snow melt around Hudson's Bay, and a good hatch is predicted there, too. With another year of good production, a return to longer Canada goose seasons shouldn't be far off. (*See Guy Zenner's accompanying article on Canada's geese in Iowa.*)

Weather, of course, can cause some unforeseen problems. In mid-summer our waterfowl habitat is in excellent condition. Northern Iowa's prairie marshes are full. Central Iowa reservoirs at Red Rock, Rathbun and Coralville have excellent habitat.

years ago it produced none. These geese are now the source of most of our Canada goose hunting opportunities.

Not that migrating Canada geese are unimportant to the Iowa waterfowler. Iowa goose hunters certainly take their share of the Canada geese that nest in the sub-arctic from the Eastern Prairie Population (EPP), Mississippi Valley Population (MVP) and the Tall Grass Prairie Population (TGPP). EPP and MVP Canada geese, just smaller than giant Canada geese and nearly indistinguishable when in the hand, nest on south and west sides of Hudson Bay. "Hutchies," the small Canadas from the TGPP, nest on Baffin Island north of Hudson Bay. Prior to the return of the giant Canada goose, these long distant migrators were the sole source of Canada goose hunting opportunities west of the Mississippi River.

But now the giant Canada goose is back and hunting opportunities have improved dramatically. Most notable are the excellent hunting opportunities like the one described earlier. These small pond, small investment hunts are a direct result of the giant Canada goose restoration strategy employed by the DNR. Breeding flocks were established (in pens, in some cases) that were surrounded by large areas closed to Canada goose hunting. These closed areas, 13 as of this fall, allowed local Canada goose populations to grow and sustain themselves because young birds were protected until they reach breeding age at three years old. As local populations grew, geese moved out onto surrounding ponds, marshes and rivers, and soon geese were nesting 50 miles outside the refuges. These growing local flocks, in turn, began to attract migrating geese, and soon refuges were holding 10 to 30,000 Canadas each fall. More importantly though, those pioneering birds, the ones using the small wetlands and rivers, began to provide once-in-a-lifetime hunting experiences for the average Iowa waterfowler.

Many goose hunters do not realize how good they have it. Field and over-water Canada goose hunting opportunities abound, unencumbered by the constraints of tags, special permits, quota zones, and the controlled hunting that accompany large goose refuges like Horicon Marsh in Wisconsin, Lac qui Parle in Minnesota, and Swan Lake in Missouri. No, we don't have 150,000 Canada geese on one reservoir in Iowa. We have something far better -- a series of refuges that not only insures that our local populations are sustained, but also keep migrant geese spread out across the state.

Establishing this system of refuges was not easy. In all cases, hunters had to be convinced to forgo some present hunting opportunity in the hope of getting better opportunities in the future. There are no guarantees when working with wildlife, but so far the investments have paid off. And if history is any teacher, future investments in refuges and restoration flocks should be equally profitable.

Our giant Canada goose restoration program has not yet reached its peak. Giant Canadas still have room to expand in Iowa and surrounding Midwest states. With public support, Canada goose hunting and viewing opportunities, and their associated economic benefits, will be better and more wide spread in years to come. Hunters will have to be especially patient as biologists try to balance the harvest of giant Canada geese with the harvest of the tundra-nesting Canadas whose populations fluctuate at the whims of the arctic weather. But as the giant Canada goose population grows, quality goose hunting opportunities will become more readily available across the state. It may be hard to believe, but the "good old days" of Canada goose hunting are yet to come.

Guy Zenner is the waterfowl research biologist for the department located at Clear Lake.

1994-95 HUNTING SEASONS AND BAG LIMITS

(Species marked with a ✔ are tentative and will be set by the Natural Resource Commission in September)

SPECIES	SEASON (dates inclusive)		SHOOTING HOURS	BAG LIMITS DAILY	BAG LIMITS POSSESSION
Pheasant* ✔	Oct. 29 - Jan. 10, 1995	Opening date is final	8:00 a.m.. to 4:30 p.m.	3	12
Quail* ✔	Oct. 29 - Jan. 31, 1995			8	16
Gray Partridge ✔	Oct. 8 - Jan. 31, 1995			8	16
Duck and Coot ✔	Sept. 17-19 and Oct. 15 - Nov. 20 Oct. 1, 2, 3 and Oct. 22- Nov. 27		1/2 Hour Before Sunrise to Sunset	3 (Duck) 15 (Coot)	6 (Duck) 30 (Coot)
Geese (Canada, White-fronted, Brant) ✔	Oct. 8 - Dec. 1 (North) Oct. 22- Dec. 15 (South)			7 (no more than 2 Canadas and 2 white-fronted)	14 (no more than 4 Canadas and 4 white-fronted)
Geese (Snow) ✔	Oct.1 - Jan.10,1995 Statewide				
Rail (Sora & Virginia)	Sept. 3 - Nov. 11			12	24
Snipe	Sept. 3 - Nov. 11			8	16
Turkey (Gun)**	Oct. 10 - Nov. 30			One turkey per license	One turkey per license
Turkey (Bow Only)**	Oct. 1 - Dec. 2 and Dec. 19 -Jan 10, 1995		1/2 Hour Before Sunrise to 1/2 Hour After Sunset		
Deer (Bow)	Oct. 1 - Dec. 2 and Dec. 19 - Jan. 10, 1995			One deer per license	One deer per license
Deer (Muzzleloader)	Oct. 15 - Oct. 23** (Early) or Dec. 19 - Jan. 10, 1995 (Late)				
Youth Deer (Age 12-15)+	Sept. 17 - Oct. 2				
Deer (Shotgun)	Dec. 3 - Dec. 7 or Dec. 10 - Dec. 18		Sunrise to Sunset		
Ruffed Grouse	Oct. 8 - Jan. 31, 1995			3	6
Woodcock	Sept. 17 - Nov. 20			5	10
Rabbit (Cottontail)	Sept. 3 - Feb. 28, 1995			10	20
Rabbit (Jack)	Oct. 29 - Dec. 4			2	4
Squirrel (Fox & Gray)	Sept. 3 - Jan. 31, 1995		None	6	12
Groundhog	June 15 - Oct. 31			None	
Crow	Oct. 15 - Nov. 30 and Jan. 14 - March 31, 1995				
Pigeon***	Oct. 1 - March 31, 1995				
Raccoon and Opossum	Nov. 5 - Jan. 31, 1995		None Open 8:00 a.m. First Day Only		
Fox (Red & Gray)	Nov. 5 - Jan. 31, 1995				
Coyote	Continuous Open Season				

* Season opening dates are set for Oct. 29. Shooting hours and bag limits are tentative and will be finalized in September.

** Residents only

*** However, within 100 yards of buildings and bridges pigeons may be taken year round.

\+ See regulations for all requirements.

Ducks: The daily bag limit is three (3) ducks and may include no more than two (2) mallards (no more than one (1) of which may be a female), one (1) black duck, two (2) wood ducks, one (1) redhead, one (1) canvasback and one (1) pintail.
The possession limit for ducks shall not include more than four (4) mallards (no more than two (2) of which may be female), two (2) black ducks, four (4) wood ducks, two (2) redheads, two (2) canvasbacks and two (2) pintails.
Mergansers: Daily bag limit is five (5) (no more than one (1) of which may be a hooded); possession limit is ten (10) (no more than two (2) of which may be hooded).
Check regulations for areas closed to waterfowl hunting. Steel shot is required statewide for waterfowl hunting.

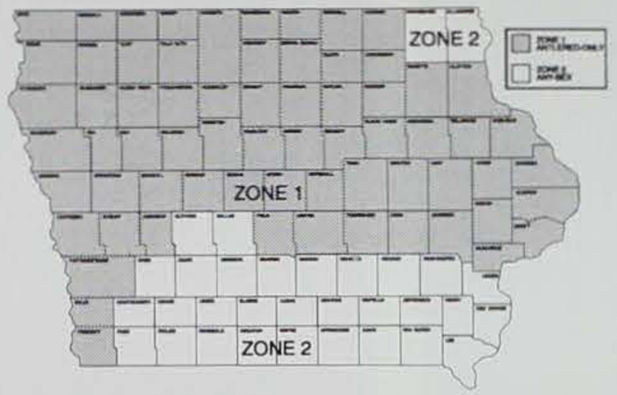
1994-95 TRAPPING SEASONS

SPECIES	OPENING	CLOSING
Mink, Muskrat,* Raccoon, Weasel, Striped Skunk, Badger, Opossum, Fox (red & gray), Coyote	Nov. 5 **	Jan. 31, 1995 **
Beaver	Nov. 5	April 15, 1995
Civet Cat (spotted skunk), Bobcat and Otter	Continuous Closed Season	
Groundhog	June 15	Oct. 31

*Selected areas may be established in February, for muskrat trapping only.
**All furbearer seasons open at 8 a.m. on the opening date. There are no daily bag or possession limits.

1994 Iowa Hunting and Trapping Regulations will be available at DNR offices and license vendors in mid-September. Consult this publication for final season dates and bag limits, and a more complete explanation of hunting and trapping regulations.

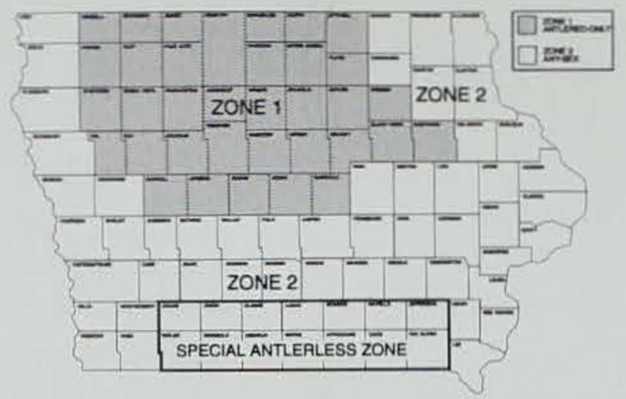
Early Muzzleloader and Regular Gun Season 1 (Deer)



Season 1 (Deer)
Zone 1 (All Licenses Antlered Only)
Audubon, Benton, Black Hawk, Boone, Bremer, Buchanan, Buena Vista, Butler, Calhoun, Carroll, Cedar, Cerro Gordo, Cherokee, Chickasaw, Clay, Clayton, Clinton, Crawford, Delaware, Dickinson, Dubuque, Emmet, Fayette, Floyd, Franklin, Fremont, Greene, Grundy, Hamilton, Hancock, Hardin, Harrison, Howard, Humboldt, Ida, Iowa, Jackson, Jasper, Johnson, Jones, Kossuth, Linn, Lyon, Marshall, Mills Mitchell, Monona, Muscatine, O'Brien, Osceola, Palo Alto, Plymouth, Pocahontas, Polk, Pottawatamie, Poweshiek, Sac, Scott, Shelby, Sioux, Story, Tama, Webster, Winnebago, Woodbury, Worth, Wright

Season 1 Zone 2 (All Licenses Any Sex)
All counties not in Zone 1.

Late Muzzleloader and Regular Gun Season 2 (Deer)

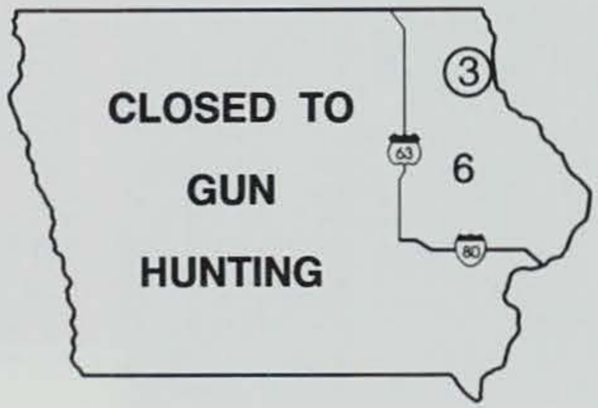


Season 2
Zone 1 (All Licenses Antlered Only)
Black Hawk, Boone, Bremer, Buchanan, Buena Vista, Butler, Calhoun, Carroll, Cerro Gordo, Cherokee, Clay, Dickinson, Emmet, Floyd, Franklin, Greene, Grundy, Hamilton, Hancock, Hardin, Humboldt, Ida, Kossuth, Marshall, Mitchell, O'Brien, Osceola, Palo Alto, Pocahontas, Sac, Story, Webster, Winnebago, Worth, Wright

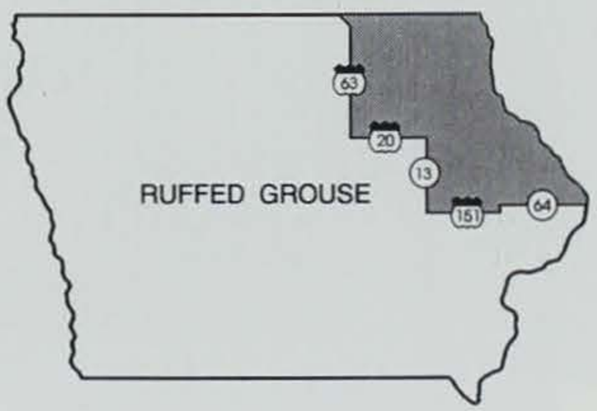
Season 2 Zone 2 (All Licenses Any Sex)
All counties not in Zone 1 (includes the Special Antlerless Zone.)

Season 2 Special Antlerless Zone
Adams, Appanoose, Clarke, Davis, Decatur, Jefferson, Lucas, Monroe, Ringgold, Taylor, Union, Van Buren, Wapello, Wayne

Fall Turkey Zones



Grouse Zone



Roger A. Hill

With normal late-summer rains, duck hunting conditions should be good. If duck and goose migrations occur at their normal times, waterfowlers ought to be ecstatic.

Deer

Expect another excellent season! By DNR design the deer kill has been restricted in much of northern Iowa the past two years to protect and rebuild the herd. Buck-only hunting and other license restrictions are doing their jobs. Fewer hunters have taken fewer deer, particularly fewer does. (The statewide deer harvest was estimated at 75,000 last year). Winter aerial surveys and the number of deer killed in vehicle collisions show deer herds are up 5 to 20 percent. With that kind of response, liberalizations in deer seasons shouldn't be far off.

In the meantime, licensing procedures have been simplified to give deer hunters more hunting options. This year, all firearm and bow licenses are valid statewide, except for second bow, second firearm, and free landowner/tenant licenses. With their first gun or first bow license, hunters may hunt anywhere in the state they have permission. First bow licenses are valid for taking any deer. Firearms hunters must be careful to shoot only

A Statewide Fall Turkey Season? -- Yes, There is Hope!

by DeWaine Jackson

The first fall turkey season in Iowa occurred as an experimental season in 1981. For nine years following that season, the area open to hunting expanded nearly 10-fold and the number of licenses issued increased six-fold. But in 1991, following two years of drastically reduced statewide reproduction by wild turkeys, the fall hunting season was curtailed. Three years later (1994), only zones 3 and 6 (northeast Iowa) remain open. Many individuals have expressed gratitude for the DNR's decision to limit fall hunting while others are anxiously awaiting the opportunity to again hunt turkeys in their area. Will we *ever* see a fall season like we experienced in 1989? Before we can answer that, let's consider what fall turkey hunting is all about.

The DNR's goal for wild turkeys is to provide recreational enjoyment of turkeys, maintain or increase populations according to habitat capabilities, and to have a high-quality spring hunt. When the DNR first reintroduced Eastern wild turkeys in 1965, biologists optimistically projected stable populations being established in only three areas -- our state forests. It was believed that for survival, turkeys required large expanses of hardwood forest. But turkeys adapted amazingly well to Iowa's patchy crop-timber habitat and have far-exceeded the initial expectations. We now have wild turkeys in every county and the entire state is open during the spring hunt. Spring gobbler hunting has almost no impact on wild turkey populations because a single tom will breed more than one hen and hunters rarely harvest more than 10 to 15 percent of the toms. Fall either-sex hunts, however, can have significant effects on populations, particularly in years of poor production.

Typically, fall turkey hunts are established to harvest young-of-the-year birds. In normal production years, most of the harvest consists of young turkeys that would have likely died of natural causes and the overall population is not adversely effected. DNR research has shown that when poor production occurs, large numbers of productive adult hens are harvested instead. This has significant population effects. Not only are hens harvested that would likely have survived, but the reproductive potential is reduced the following spring. Computer population modeling has shown that a fall harvest comparable to 1989, and less-than-average statewide production, would produce a gradual population decline

Roger A. Hill

for most hunting zones. If fall harvest was removed, populations would have remained stable or increased slightly. Therefore, it was decided to eliminate fall hunting except in zones where annual poult production was above average. Given these constraints, only zones 3 and 6 in northeast Iowa had sufficient production to warrant a fall season. That, in brief, is the history of fall turkey hunting in Iowa. But what about the future?

The DNR annually monitors turkey poult production, harvest and hunter success rates. Poult production has been below the long-term average for the last six years even though spring harvest and success rates have remained relatively stable. Because turkeys are long-lived compared to most upland game birds, a conservative harvest and good production allow high population densities to develop. In years of poor production this high density population's "surplus" individuals buffer the lost production and allow harvest and success rates to remain relatively unchanged. There is a limit, though, to the number of poor reproduction years a population can withstand before obvious declines in turkey numbers or harvest occur. This is the situation we are presently experiencing. Without consistent and average levels of production, it's doubtful fall hunting will return to many Iowa counties. If statewide turkey production improves substantially for two years, the fall hunting zones with the best production levels will be reopened. The DNR's goal is to eventually allow fall turkey hunting statewide and annually harvest about half as many turkeys in the fall as in the spring. We need some excellent production years coupled with good poult survival and we will see a fall turkey season statewide. There is hope!

DeWaine Jackson is the forest research biologist for the department's wildlife section. He is located in Boone.

Whatever your choice of weapon or season, Iowa's amazing deer hunting opportunities should continue for you in 1994.

Roger A. Hill

Ban on Leghold Traps Threatened

by Ron Andrews

Trappers, hunters and wildlife biologists were somewhat surprised by recent action taken by the European Union (EU, formerly the European Economic Community) to ban from the European market furs taken from countries that allow the use of the leghold trap. The leghold/foothold trap did not meet international trap standards set by the International Standards Organization (ISO). Fur industry experts estimate that, either directly or indirectly, the EU market receives 75 percent of U.S. wild fur exports. Such a loss of market will likely cause a collapse of commercial harvest of wild fur in the U.S. The ban is scheduled to go into effect January 1, 1996.

Current trap standards attempt to address furbearer pain and stress thresholds. According to ISO interpretation, available data is not adequate to allow leghold/foothold traps to meet such "humane" standards. U.S. delegation chairman Tom Krause, of the National Trappers' Association, stated, "It would cost millions of dollars and years to generate that kind of data."

Animal rightists campaigning throughout the world, are "demonizing" the use of the leghold/foothold trap and the wearing of fur by humans. None of their campaigns are based on data. They have infiltrated the ISO's technical advisory group and are currently trying to circumvent the language of the EU regulation by removing the word humane so that no trap could be certified.

The economic impact of the fur industry in the U.S. in 1990 was $4.6 billion dollars. The industry generated $1.2 billion in fur sales, $1.55 million in state and federal taxes; $2.95 billion in salaries and wages and 226,000 jobs.

In a related effort, animal rights groups are working very hard to stop all animal damage control work on federally owned land and restrict it on private land. USDA's animal damage control budget for 1994 is $35.7 million. Even with approximately 150,000 private trappers harvesting furbearers and acting as private predator control agents, losses to depredation will exceed an estimated $800 million this year. In the southeast U.S. alone, beavers will cause approximately $200 million in damages to timber, roads, bridges, crops and private property this year. Livestock and poultry producers will suffer approximately $140 million in wildlife-inflicted damage. The cattle industry projects the loss of approximately 106,000 cows and calves to depredation valued at more than $41.4 million. The sheep industry predicts a loss of approximately 650,000 sheep and lambs valued at more than $46 million. Research shows that on ranches where

antlered deer on their first license if they are hunting in Zone 1. Any deer may be taken when they are hunting in Zone 2. Since the zones change between early and late gun seasons, hunters need to check zone maps in their *1994 Iowa Hunting and Trapping Regulations* brochure very carefully.

Second bow and second firearms licenses are restricted to taking antlerless deer in the Special Antlerless Zone, a 14-county area in southern Iowa where deer are still so plentiful that the goal is to reduce the herd. Free landowner/tenant licenses are restricted, by law, to the farm unit of the landowner/tenant.

Two other improvements will benefit some hunters. For the first time, a bow will be a legal weapon on a late muzzleloader season license. This means that bowhunters that don't want to hunt with a firearm may get a bow and late muzzleloader license and hunt in their own locale on both licenses. And the 1994 legislature modified the non-resident deer and turkey hunting law to allow the DNR to issue up to 5,000 non-resident deer and up to 2,000 non-resident turkey hunting licenses beginning in 1995. This will allow even more ex-Iowans or hunters with friends or relatives here to come back and hunt. Whatever your choice of weapon or season, Iowa's amazing deer hunting opportunities should continue for you in 1994.

Furbearers

The story on furbearers sounds like a broken record -- low demand for furs in the fashion industry, low pelt prices and consequently little interest in furharvesting by the profit-oriented hunter and trapper. Furbearer populations are very high because of the low trapping and hunting pressure, and in some areas because the Conservation Reserve Program has provided thousands of acres of additional habitat. Those furharvesters that enjoy the sport for its recreational benefits will find ongoing excellent opportunities this year. The only cloud on the near horizon is the pending ban on fur sales to Europe, for those furs caught in countries that allow the use of the leghold trap. (*See Ron Andrews accompanying article for the details.*)

So get busy all you nimrods. Load up those extra shells, exercise the dog (and you) and practice your shooting and archery techniques. You'll need them this year. And even if 1994 isn't our best year ever, we'll all be in a better frame of mind than we were last year.

Terry W. Little is the wildlife research supervisor for the department in Des Moines.

›redator management is stopped, sheep ınd lamb losses triple within two ›ears.

If the European community's trade ›arrier is allowed to stand, all the ıbove costs will fall squarely on the ›acks of the U.S. taxpayers. Experts ›redict these costs to property and :rops, and the appropriate animal lamage control will more than triple in he three years following its enactnent.

There is some hope that the ban vill not be enacted. Some European :ountries are vacillating enough that he U.S., Canada and perhaps another :ountry or two are hopeful that a :larification redraft of the regulation or :xtended deadline will occur. Russia nay be a useful ally for the U.S. and Canada because of it's great fur 'esources and the need to help its :conomy in whatever way possible.

The original deadline of January 1, 1995, was recently extended for one /ear, giving more time for a compronise to be found. To forestall this ıction, fur harvesters should immediately contact their U.S. Senators and Representatives and encourage them to: have the administration send a direct message to the EU Parliament stating that our wildlife management policy *will not be dictated* by a European Union/ISO trade barrier; ask that U.S. Trade Representative Mickey Kantor elevate this issue to the ambassadorial level of discussion; and insist that wildlife policies be based on science instead of unfounded emotional information or philosophical rhetoric.

Furharvesters should also continue to support efforts to harvest fur with the most humane practices possible. Using the most appropriate and ethical techniques will reduce the fervor that anti-trappers and the media sometimes display against the legitimate harvest of furbearers and other wildlife.

Ron Andrews is the department's furbearer research specialist and is located at Clear Lake.

This is going to be a *good* hunting season, maybe even better than good!

HUNTERS AGAINST HUNGER

A new program designed to link Iowa deer hunters and meat processors with food pantries provides much needed food for the states' less-fortunate.

Article by Ross Harrison

Iowans have quite a history of giving. The spirit of helping the less-fortunate was prevalent during the flood of '93, but that shouldn't be news to anyone. When it comes to giving money, labor and other support, Iowans have always been among the leaders in relief efforts in far off countries, in our own, and right in our own communities.

Now comes another opportunity, a bit unusual, but it also shouldn't be a surprise that some of it has been going on for a long time. It was formalized several years ago by Safari Club International, and now the Iowa DNR is stepping in to bolster the effort, to make it a much bigger deal, and help a lot of hunters who just want to do the right thing.

Hunters Against Hunger -- HAH -- is an attempt for deer hunters and cooperating commercial meat processors to get maximum value out of their venison. Not the dollar value, but the human value. That can be done by assuring none of your venison is ever wasted, and by providing a decent percent of your commercially processed venison to those who could really use it. HAH simply offers a way you can do it.

Meat is one of the foods in shortest supply in food pantries and missions for the needy in Iowa. At the same time, deer hunters may have more venison than their family can consume before the next hunting season, or some hunters just may want to share their harvest with those in need.

Venison is the only game meat that Salvation Army food pantries, The Food Bank of Iowa and most local missions will accept. They prefer it ground into "hamburger", frozen and in one- to two-pound packages. By law, only 100 percent pure deer meat and tallow, commercially prepared by a certified food processor, can be used. There are about 250 certified food processors, otherwise known as lockers, in Iowa. Deer processing is big business to them. More than half of the commercial meat processors in Iowa are in business because of their trade in deer.

With the support of the local lockers and generous Iowa deer hunters, Hunters Against Hunger is a system that completes the circle by getting this extra venison to the needy. The first decision is the deer hunter's. "Do I participate, and if so, how much do I give?" The deer hunter may have to pay for the processing costs of the venison being donated, or some of those costs may be donated by the locker. Such costs may range around $1 per pound.

How will the venison get from the locker to the needy? That's where a vast cooperation effort comes in. Throughout Iowa, groups like Pheasants Forever, Ducks Unlimited, the Iowa Wild Turkey Federation and others have asked to help. Local members of those sporting organizations will contact their local deer processors and offer to pick up donated venison on a periodic basis and take it to the closest mission, or food pantry of the Salvation Army or Food Bank of Iowa.

Deer hunters are the ones who can really make HAH work. They need to enlist the support of their deer processor, getting their permission to hold the frozen venison until a volunteer picks it up. The DNR is asking lockers throughout the state to participate in HAH to ensure widespread success of the program. To make a contribution, just look for the HAH poster displayed at cooperating lockers. For your convenience, a list of lockers who have already agreed to participate will be printed on the inside back cover of the Conservationist's 1995 calendar (November/December, 1994 issue). Of course, more businesses will be added to the roster as enthusiasm for the program spreads.

Ross Harrison is the department's information and education bureau chief in Des Moines

HAH

1994 Iowa Record Deer Racks

This is a list of deer racks scored between October 1993 and July 1994.
New entries into the All-Time Top 10 Racks, found on page 21 are designated by an asterisk (*).

SHOTGUN, TYPICAL

(Minimum Qualifying Score - - 150 points)

NAME	CITY	COUNTY TAKEN	YEAR	TOTAL SCORE
Loren N. Phipps	Boone	Boone	1993	180-0/8
Michael Coleman	Center Point	Davis	1993	179-1/8
Pat Beelman	Ft. Madison	Lee	1991	176-6/8
Gary Bahlmann	Tripoli	Chickasaw	1992	172-4/8
Dean Aicher	Mt. Pleasant	Henry	1993	172-4/8
Mike First	Monticello	Jones	1993	171-7/8
Richard A. Bollman	Cresco	Winneshiek	1993	171-7/8
Brad Herman	Evansdale	Blackhawk	1993	171-6/8
Donald Haines	Exline	Appanoose	1993	171-3/8
Joe Pestotnik	Council Bluffs	Boone	1975	171-2/8
Lewis Mehaffy	Burlington	Des Moines	1987	170-4/8
Merle Allen	Norwalk	Madison	1984	170-4/8
Keen Newby	Gillman	Appanoose	1993	170-0/8
Doug Ericson	Derby	Clarke	1989	170-0/8
Charles Armstrong	Bloomfield	Davis	1992	168-7/8
Robert E. Pearson, Jr.	Dallas Center	Wayne	1993	168-2/8
Sam Delavan	Glenwood	Mills	1993	168-2/8
Randall J. Blome	Urbandale	Madison	1993	168-1/8
Dale Baugh	Panora	Guthrie	1992	168-1/8
George M. Brandt	Dow City	Crawford	1991	167-6/8
Gary Nekola	Chelsea	Tama	1990	167-3/8
Keith Bruns	Sigourney	Keokuk	1992	167-1/8
James Schultz	Leon	Decatur	1993	167-0/8
Jim Sirdoreus	Fairfield	Jefferson	1993	166-5/8
H. Lee Gladfelter	Madrid	Lucas	1989	164-6/8
James P. Weber	Sigourney	Keokuk	1993	163-7/8
Bill Dahl	Panora	Guthrie	1993	163-7/8
Marty S. Busch	Boone	Boone	1993	163-6/8
Jim Boswell	Lamoni	Decatur	1992	163-6/8
Greg Kent	Osceola	Clarke	1987	163-5/8
Brad Sheetz	Washington	Henry	1992	163-4/8
Tom Brantner	West Point	Lee	1976	163-1/8
Carl Lawrence	Ottumwa	Wapello	1975	163-0/8
Melvin Eastin	Farmington	Van Buren	1993	162-7/8
Jack D. Holder	Knoxville	Lucas	1993	162-6/8
Shawn Watts	Council Bluffs	Fremont	1993	162-4/8
John Schafer	Mt. Ayr	Ringgold	1993	162-4/8
Wendell Luko	New London	Henry	1993	162-3/8
Jeff Leyda	Bloomfield	Davis	1993	162-3/8
Cecil Collins	Woodbine	Harrison	1960	162-2/8
Scott Wical	Reinbeck	Adams	1993	162-1/8
Jeff Karns	Knoxville	Marion	1993	162-0/8
Wade Jones	Ft. Madison	Van Buren	1993	162-0/8
Jeff Whisker	Clinton	Scott	1992	161-4/8
Gene Richardson	Ft. Dodge	Page	1993	161-3/8
Chester Hostetler	Drakesville	Davis	1989	161-2/8
Monty Young	Atlantic	Cass	1981	161-1/8
David Cooper, Jr.	Harpers Ferry	Allamakee	1993	161-0/8
Barry Smith	Chariton	Lucas	1993	160-1/8
Chris E. Clement	W. Des Moines	Madison	1992	160-4/8
Barbara Casper	Cedar Rapids	Linn	1993	160-7/8
Eugene Bachman	Independence	Fayette	1992	160-6/8
Patric Wolter	Dubuque	Dubuque	1992	160-4/8
Jon Schlamp	Cedar Falls	Blackhawk	1993	160-0/8
Jeff McAtee	Stuart	Guthrie	1993	159-6/8
Terry Reed	Albia	Monroe	1989	159-4/8
Terry Morrell	Ades	Dallas	1991	158-5/8
Dave Blunk	Pacific Jct.	Mills	1980	158-1/8
Monty B. Weiler	Fort Madison	Lee	1987	157-7/8
Joe O'Neil	Harpers Ferry	Allamakee	1993	157-6/8
Gary Sheetz	Washington	Jefferson	1976	157-4/8
Mike McVicker	Ames	Wayne	1993	157-4/8
Steve Moeller	Clinton	Clinton	1985	157-3/8
Nick Beelman	Madison	Van Buren	1990	157-3/8
Dennis Schneckloth	Pacific Jct.	Mills	1981	157-2/8
Larry Lankford	Eldon	Wapello	1993	157-2/8

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Michael J. Walzer	Sheldahl	Dallas	1992	157-1/8
Don Langdon	Donnellson	Lee	1993	157-1/8
Brian A. Hagarty	Forest City	Blackhawk	1992	157-1/8
Neil O. Darrington	Underwood	Pottawattamie	1982	157-1/8
Rick Zimmerman	Indianola	Warren	1992	157-0/8
Kurt Schwartz	West Point	Lee	1992	156-7/8
Scott Scholz	Cedar Falls	Allamakee	1993	156-6/8
Dennis Parkis	Fontanelle	Adair	1992	156-6/8
Howard Bombei	Sigourney	Keokuk	1993	156-6/8
Ryan Walker	Centerville	Appanoose	1993	156-4/8
Rob Adreon	Mitchellville	Wapello	1992	156-4/8
Steven A. Jensen	Greenfield	Adair	1992	156-1/8
Joel Shenefield	Chariton	Lucas	1993	156-0/8
John W. Marker	Slater	Decatur	1992	156-0/8
Steve Downing	Creston	Union	1993	156-0/8
Kent Fuglsang	Maquoketa	Jackson	1993	155-7/8
Mark Walleser	Lansing	Allamakee	1993	155-4/8
Joe Klobnak	Hamilton	Monroe	1993	154-6/8
Stan M. Abrahamson	Boone	Ringgold	1993	154-5/8
Jerry Hansen	Estherville	Emmet	1993	154-2/8
Chad Mielke	Waterville	Allamakee	1993	154-1/8
Rodney Boock	Donahue	Scott	1992	154-1/8
Terry Luke	Woodward	Dallas	1988	154-0/8
Edwin Walleser	Lansing	Allamakee	1985	153-7/8
Ron Klein	Manchester	Clayton	1984	153-6/8
Dan Snyder	Cedar Rapids	Jones	1993	153-5/8
Leo Schlunz	Chariton	Lucas	1987	153-4/8
Steve Block	Davenport	Johnson	1993	153-0/8
Robert Griffith	Blakesburg	Monroe	1993	152-5/8
Raymond Devore	Cedar Falls	Louisa	1991	152-5/8
Bobby Laeser	Muscatine	Muscatine	1992	152-4/8
Owen A. Ott	Fayette	Clayton	1993	152-3/8
Glen Meller	Ft. Madison	Lee	1988	152-2/8
Paul Hill	Story City	Hamilton	1990	152-2/8
Chuck Domeyer	Earlville	Delaware	1993	152-2/8
Bernell Diersen	Lansing	Allamakee	1993	152-2/8
Larry Cuddeback	Brighton	Washington	1992	152-2/8
Mike Connor	Muscatine	Muscatine	1992	152-2/8
David L. Pendroy	Monroe	Marion	1991	152-1/8
Dean Coffman	Moorehead	Monona	1962	152-0/8
James I. Miller	W. Burlington	Des Moines	1970	151-7/8
Jerry Irwin	Grand Mound	Clinton	1993	151-7/8
Gregg Moyers	Davenport	Van Buren	1993	151-4/8
Roger Christensen	Lansing	Allamakee	1974	151-4/8
Gordon Allen	Council Bluffs	Montgomery	1992	151-2/8
Scott Sauer	Muscatine	Muscatine	1992	151-1/8
Mike Fruend	Lewis	Cass	1991	151-1/8
Jeff Schaaf	Griswold	Montgomery	1990	151-0/8
Steve Queck	Runnells	Union	1993	151-0/8
Marvin Hackwell	Exira	Audubon	1989	150-7/8
Harold Courtney	Pleasantville	Marion	1993	150-7/8
Steve Westfall	Wiota	Cass	1993	150-6/8
Bernard Walters	Chariton	Lucas	1992	150-6/8
Gene Gans	Dubuque	Dubuque	1993	150-5/8
Chuck Baker	Clemons	Marshall	1991	150-5/8
Rees Polich	Madrid	Boone	1993	150-4/8
Scott Pape	Little Sioux	Harrison	1993	150-2/8
Jim Morgan	Ottumwa	Wapello	1991	150-0/8
Jay Durfey	Pacific Jct.	Fremont	1991	150-0/8

SHOTGUN, NONTYPICAL

(Minimum Qualifying Score - - 170 points)

NAME	CITY	COUNTY TAKEN	YEAR	TOTAL SCORE
Robert Wonderlich*	Oskaloosa	Monroe	1970	244-6/8
Frederick Becker*	Guttenberg	Clayton	1993	230-0/8
Merle Shirbroun	Coon Rapids	Guthrie	1963	213-5/8
Chris E. Clingan	Fairfield	Van Buren	1993	212-2/8

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George Tonelli	Melrose	Wayne	1993	208-0/8
Paul Poore	Logan	Harrison	1992	206-3/8
Rodney Watson	Anita	Cass	1993	204-6/8
Eugene Holthaus	Guttenberg	Clayton	1991	199-3/8
Merrit Blunk	Kiron	Crawford	1993	198-5/8
Dan L. Bishop	Bondurant	Wayne	1993	198-2/8
Norman Handler	West Point	Lee	1963	196-2/8
Dave Porter	Honey Creek	Pottawattamie	1984	194-5/8
Dennis L. Brown	Burlington	Des moines	1993	191-6/8
Jeff Conrad	Bonaparte	Van Buren	1987	191-0/8
Dan Kent	Belle Plaine	Benton	1992	187-2/8
Gerald H. Tietz	Nashua	Chickasaw	1993	187-0/8
John J. Pulver	Cedar Rapids	Wapello	1992	184-0/8
Doug McKeehan	Montrose	Van Buren	1993	183-2/8
Ron Staley	Alburnett	Appanoose	1993	182-6/8
Duane Akers	Ottumwa	Wapello	1993	182-4/8
Kevin Van Donselaar	Oskaloosa	Mahaska	1993	181-6/8
John A. Fisher	Des Moine	Madison	1993	180-4/8
Dean A. Dravis	Burlington	Lee	1984	179-3/8
Larry Robinson	Mechanicsville	Cedar	1993	179-1/8
Jeffrey M. Olson	Humbolt	Humboldt	1993	178-2/8
Daniel Wilson	Blakesburg	Monroe	1993	177-0/8
Mike Fogue	Des Moines	Guthrie	1990	176-5/8
Joe Roth	Norwalk	Lee	1992	176-3/8
Roger Christensen	Lansing	Allamakee	1987	176-3/8
Bill Atteberry	Shenandoah	Page	1993	175-6/8
Nick Beelman	Ft. Madison	Lee	1988	175-0/8
Mike Clapper	Rhodes	Jasper	1992	174-4/8
Bob Burquist	West Point	Lee	1991	172-6/8
Troy Schneckloth	Pacific Jct.	Mills	1992	172-5/8
Mark Miller	Maquoketa	Jackson	1992	172-5/8
Gary Kula	Anamosa	Jones	1993	171-7/8
Tom and David Nash	Des Moines	Union	1993	170-3/8
Larry Honts	Muscatine	Muscatine	1993	170-1/8

MUZZLELOADER, TYPICAL

(Minimum Qualifying Score - - 150 points)

NAME	CITY	COUNTY TAKEN	YEAR	TOTAL SCORE
Charles Schott	West Union	Fayette	1993	161-5/8
Marcus A. Taylor	Waterloo	Warren	1993	159-0/8
Kenny Hawkins	Salem	Henry	1989	159-1/8
Scott Sauer	Muscatine	Muscatine	1990	153-7/8
Ron Spengler	Ocheydan	Monroe	1990	152-3/8
Kevin LaFrantz	Kiron	Mills	1993	152-2/8
Tom Fangman	Dundee	Delaware	1993	151-4/8
Les Cushion	Fayette	Fayette	1994	150-4/8
Don Allely	Shenandoah	Page	1993	150-2/8
John Hohnstein	Cedar Rapids	Benton	1993	150-1/8

MUZZLELOADER, NONTYPICAL

(Minimum Qualifying Score - - 170 points)

NAME	CITY	COUNTY TAKEN	YEAR	TOTAL SCORE
Allen Meek	Ames	Boone	1993	176-3/8

BOW, TYPICAL

(Minimum Qualifying Score - - 135 points)

NAME	CITY	COUNTY TAKEN	YEAR	TOTAL SCORE
Jeffery L. Whisker*	Clinton	Scott	1993	191-0/8
Lonnie Archer	Drakesville	Davis	1993	172-0/8
Mike Noble	Wapello	Louisa	1992	171-4/8
Patrick Schellsmidt	Lansing	Allamakee	1993	168-7/8
Chuck Coffman	Centerville	Appanoose	1992	166-2/8
Pat Fisher	Colo	Wappello	1991	164-3/8
Dennis Hiller	Letts	Louisa	1993	162-0/8

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Alan Shields	Osceola	Clarke	1993	160-0/8
Chad McIntosh	Osceola	Clarke	1992	160-6/8
Mike Judas	Evansdale	Lyon	1993	159-4/8
Dennis Hiller	Letts	Louisa	1993	159-1/8
Kevin Morgan	Batavia	Jefferson	1993	158-4/8
Neil O. Darrington	Underwood	Pottawattamie	1992	157-1/8
Ernie Burroughs	Waukon	Allamakee	1992	157-5/8
Bryan Hayes	Centerville	Appanoose	1991	156-7/8
Gene A. Hall	Charles City	Allamakee	1993	156-0/8
Dan Folkers	Des Moines	Dallas	1992	156-7/8
Ed Hunsucker	Davenport	Scott	1990	155-7/8
Barbin Dykes	Drakesville	Davis	1993	155-4/8
Bill Mitchell	New Albin	Allamakee	1993	154-5/8
Deric Saunders	Farmington	Van Buren	1993	154-2/8
John K. Foster	Muscatine	Van Buren	1993	154-1/8
Chris Fowler	Argyle	Lee	1980	153-7/8
Bill Cowan	Centerville	Appanoose	1993	153-6/8
Dale Clark	Ft. Madison	Lee	1991	153-4/8
Hunter B. Techau	Cedar Rapids	Linn	1993	153-3/8
Tom Kelderman	Oskaloosa	Mahaska	1993	153-0/8
John Henry Yoder	Bloomfield	Davis	1993	152-7/8
Kim Thompson	Atlantic	Adams	1993	152-7/8
Leanard Ditch	Maquoketa	Jackson	1993	152-4/8
Herchel Anderson	Davenport	Scott	1992	152-3/8
Mark Pauley***	Dubuque	Dubuque	1993	151-7/8
Mark A. Kamm	Waukon	Allamakee	1993	151-7/8
Dave Orr	Ft. Madison	Lee	1992	150-2/8
Richard D. Watts	University Park	Monroe	1993	150-3/8
Todd Nace	Albia	Monroe	1994	150-0/8
Todd T. Carr	Moville	Woodbury	1993	149-5/8
Gary Miller	Maquoketa	Jackson	1993	149-3/8
Dwight Swenson	Soldier	Monona	1993	149-2/8
James Frandsen	Blue Grass	Scott	1993	149-2/8
Doyle E. Roberts	Scranton	Greene	1993	148-5/8
John Flies	Dallas Center	Dallas	1993	148-5/8
John D. Sheridan	Greenville	Clay	1993	148-3/8
Richard A. Pustka***	Runnells	Polk	1993	148-3/8
Brian Williams	Clarinda	Page	1993	148-2/8
Harold Lingenfelter	Yarmouth	Des Moines	1992	147-5/8
Kenneth Cruchelow	Indianola	Warren	1993	147-4/8
Marvin Buckmaster	Oelwein	Fayette	1993	147-4/8
Stewart Goslinga***	Kingsley	Plymouth	1993	147-1/8
Barbara Bazal	Vining	Tama	1993	147-0/8
Mark Sedlmayr	Creston	Union	1993	146-2/8
Dwaine Knouse	Indianola	Warren	1993	146-2/8
Ronald A. Sunken	Iowa Falls	Hardin	1993	146-1/8
Harley Johnson	Mondamin	Harrison	1992	145-6/8
Rich Reed	Creston	Adams	1993	145-1/8
Fred Allen	Winterset	Monroe	1993	145-1/8
Jim Molle	Centerville	Appanoose	1993	145-0/8
Jim Harper	Muscatine	Johnson	1991	145-0/8
Ben Moore	Mt. Pleasant	Henry	1993	144-6/8
Randy Ledbetter	Salem	Henry	1979	144-6/8
Ron Huntington	Dubuque	Clayton	1992	144-5/8
Wayne Lamoreux	Mason City	Winneshiek	1993	144-4/8
Roy Mikesell	Des Moines	Madison	1993	144-2/8
Ron Manrose	Shenandoah	Fremont	1993	142-4/8
Tom Lingenfelter	Burlington	Des Moines	1991	142-4/8
Jason P. Jedele	Iowa Falls	Hardin	1992	143-3/8
Garry Brown	Charles City	Floyd	1993	142-0/8
Jeff Van Tress	Lancaster, MO	Appanoose	1993	141-6/8
Lonnie Storesund	Coon Rapids	Guthrie	1993	141-6/8
Steve Hoeppner	Washta	Cherokee	1903	141-4/8
Jack D. Murphy	Jefferson	Greene	1993	141-3/8
R. C. Field	Clear Lake	Cerro Gordo	1993	141-3/8
Joe Uedelhofen	Booneville	Dallas	1993	141-0/8
David Elsbury	Cedar Rapids	Linn	1993	141-0/8
Mark Breitsprecker	Dubuque	Dubuque	1993	141-0/8
James V. Crosby	Harvey	Marion	1993	140-6/8
Dwayne Clayton	Creston	Union	1993	140-6/8
M.A. Smith, Jr.	Des Moines	Dallas	1993	140-4/8
Ken Rummelhart	Coralville	Washington	1992	140-4/8
Bob Schwab	Columbus Jct.	Louisa	1993	140-2/8
Jim Heick	Calmar	Winneshiek	1993	140-2/8
Gary Kelderman	Oskaloosa	Mahaska	1993	140-1/8
Jeff Coonts	Buffalo	Scott	1993	140-0/8
Kelly Murray	Hampton	Butler	1993	139-7/8
Dan Patten	Earling	Shelby	1993	139-6/8
Jerry Marshall	Numa	Appanoose	1993	139-6/8
Jim Mitchell	Fayette	Fayette	1993	139-4/8

Randy D. Kramer	West Point	Van Buren	1992	138-5/8
Ed Rice	Des Moines	Polk	1992	138-3/8
Chris Hand	Maxwell	Story	1993	138-2/8
Tim Hackett	Oakland	Pottawattamie	1993	138-2/8
Keith Bell	Clarion	Wright	1993	138-1/8
Bill Dougherty	Bedford	Taylor	1993	138-0/8
Mike Craff	Ottumwa	Wapello	1993	138-0/8
Bob Heckman	W. Des Moines	Guthrie	1983	137-5/8
Dennis M. Bradley	Ottumwa	Wapello	1993	137-5/8
Joseph C. Behr	Coralville	Johnson	1993	137-3/8
Lyle Brinegar	Moulton	Appanoose	1993	137-1/8
Duane Smith	Burlington	Des Moines	1988	137-0/8
Joe Larson	Emerson	Mills	1993	136-7/8
Richard T. Lange	Des Moines	Story	1989	136-7/8
Terry Pullen	Denison	Crawford	1993	136-6/8
Vernie W. Grasty	Menlo	Guthrie	1993	136-6/8
Mark Shamblen	Council Bluffs	Harrison	1993	135-4/8
Kent D. Berte	LuVerne	Kossuth	1993	135-1/8
Rod Waschkat	Waterloo	Allamakee	1993	135-0/8

BOW, NONTYPICAL

(Minimum Qualifying Score - - 155 points)

NAME	CITY	COUNTY TAKEN	YEAR	TOTAL SCORE
Mike Hobart*	Prole	Madison	1993	229-5/8
Don K. Mealey	Norwalk	Clarke	1993	193-4/8
John Shumaker***	Des Moines	Taylor	1991	188-3/8
Randy Hageman	Waucoma	Fayette	1993	187-2/8
Scott Ogden	Iowa City	Johnson	1993	184-6/8
Dan Ingle	Newton	Jasper	1993	184-1/8
Mark Schutt	Lost Nation	Clinton	1993	175-1/8
Karl Lundgren	Red Oak	Pottawattamie	1993	173-6/8
Dan Enger	Wever	Lee	1992	173-1/8
Al Dittmer	Lucas	Warren	1993	170-4/8
Kerry Bevier	West Point	Lee	1993	170-3/8
Galen Walters	Anita	Cass	1987	160-3/8
Mike Hahn	Mapleton	Monona	1993	160-2/8
Mike Ripperger	Indianola	Warren	1993	159-7/8
Tony Clark, Jr.	Keokuk	Lee	1979	159-7/8
Russ Hall	Boone	Boone	1993	158-2/8

ALL-TIME TOP 10 RACKS

SHOTGUN, TYPICAL

NAME	CITY	COUNTY TAKEN	YEAR	TOTAL SCORE
Harold Dickman, Sr.	Woodbine	Harrison	1964	200-2/8
Wayne A. Bills	Des Moines	Hamilton	1974	199-5/8
Kenneth Tilford	Lamoni	Decatur	1985	198-1/8
Michael R. Edle	Danville	Des Moines	1989	196-4/8
George L. Ross	Ottumwa	Wapello	1969	195-1/8
Forest N. Richardson	New Virginia	Warren	1989	194-3/8
Dennis R. Vaudt	Storm Lake	Cherokee	1974	190-0/8
Lamonte A. Stark	Mt. Pleasant	Henry	1984	189-3/8
Gregg Redlin	Iowa City	Johnson	1983	187-6/8
DeWight E. Green	New Virginia	Marshall	1991	187-2/8

SHOTGUN, NONTYPICAL

NAME	CITY	COUNTY TAKEN	YEAR	TOTAL SCORE
Larry Raveling	Emmetsburg	Clay	1973	282-0/8
David Mandersheid	Welton	Jackson	1977	256-7/8
Carroll Johnson	Moorhead	Monona	1968	256-2/8
Larry J. Caldwell	Des Moines	Warren	1990	248-6/8
Carl Wenke	Cedar Rapids	Lee	1972	245-0/8
*Robert Wonderlich	Oskaloosa	Monroe	1970	244-6/8
Wendell R. Prottsman	Mt. Pleasant	Henry	1988	231-1/8
*Frederick A. Becker	Guttenberg	Clayton	1993	230-0/8
Edgar Shields	Grand River	Decatur	1986	229-6/8
Bob Harding	Pleasantville	Wapello	1985	229-3/8

MUZZLELOADER, TYPICAL

NAME	CITY	COUNTY TAKEN	YEAR	TOTAL SCORE
Jerry W. Conover	Sioux City	Monona	1990	182-0/8
Patrick G. Burkle	Earlville	Clayton	1990	170-2/8
Charles Hixson	Chariton	Lucas	1989	170-0/8
Kevin Burge	Hamburg	Fremont	1992	167-7/8
Steve Carter	Washington	Henry	1987	167-0/8
David Hammel	Dorchester	Allamakee	1990	166-1/8
Jeff Kauzlarich	Rathbun	Appanoose	1989	165-5/8
Larry Cutkomp	Donnellson	Van Buren	1989	164-6/8
Ron Murray	Missouri Valley	Harrison	1987	164-5/8
Ron Hansen	Hampton	Franklin	1989	164-3/8

MUZZLELOADER, NONTYICAL

NAME	CITY	COUNTY TAKEN	YEAR	TOTAL SCORE
Mike Moody	Hamburg	Fremont	1990	210-2/8
Vincent P. Jauron	Harlan	Monona	1990	209-1/8
Daniel Kaufman	Wapello	Louisa	1984	205-3/8
Denny Baum	Ottumwa	Wapello	1990	202-1/8
Dean Beyer	Osage	Mitchell	1991	200-5/8
Steve Mundell	Ottumwa	Monroe	1991	196-0/8
Dick Paul	Red Oak	Montgomery	1988	189-4/8
Nathan Giddings	Morrison	Jackson	1990	188-1/8
Chuck Wendt	Woodbine	Harrison	1986	185-3/8
James P. Parker	Clarinda	Taylor	1991	182-1/8

BOW, TYPICAL

NAME	CITY	COUNTY TAKEN	YEAR	TOTAL SCORE
Lloyd Goad	Knoxville	Monroe	1962	197-6/8
Robert Miller	Wyoming	Jones	1977	194-2/8
*Jeffery L. Whisker	Clinton	Scott	1993	191-0/8
Richard B. Swim	Des Moines	Polk	1981	190-5/8
Kevin Peterson	Mediapolis	Des Moines	1989	188-1/8
John L. Kite	Farmington	Lee	1990	182-6/8
Dave Elmore	Waterloo	Bremer	1992	182-4/8
Jeff L. Weigert	New London	Henry	1991	180-4/8
Vern Backstrom	Des Moines	Polk	1986	180-1/8
Rodney D. Hommer	Woodburn	Clarke	1990	179-4/8

BOW, NONTYPICAL

NAME	CITY	COUNTY TAKEN	YEAR	TOTAL SCORE
*Mike Hobart	Prole	Madison	1993	229-5/8
Jerry M. Monson	Clear Lake	Cerro Gordo	1977	222-1/8
David Propst	Duncombe	Webster	1987	219-3/8
Blaine R. Salzkorn	Sutherland	Clay	1970	218-1/8
George A. Smith	Monona	Allamakee	1991	217-4/8
Chris Hackney	Allerton	Wayne	1983	215-5/8
Joe Rettenmeier	Dubuque	Dubuqe	1987	204-1/8
Phillip M. Collier	Burlington	Des Moines	1978	203-6/8
Ted Miller	New Virginia	Warren	1986	203-5/8
Marlin Derby	Pleasant Plain	Washington	1987	202-7/8

* *indicates a new entry into the* All-Time Top 10 Racks.

*** *indicates a crossbow kill. Only physically disabled persons incapble of shooting a bow may obtain a permit to hunt deer with a crossbow.*

HUNTERS UNDER THE GUN

by Terry W. Little

This is the first in a series of articles designed to acquaint readers with the animal rights movement and help them deal with it. It is not my intention to provide a balanced view of the animal rights versus hunting-trapping controversy or a forum for both sides to tell their story. I will try to provide an overview of the conflict, familiarize readers with basic tenets of animal rights doctrine and methods of operation, and ultimately to provide hunters and trappers with basic information about why their activities are legitimate. Animal rights advocates commonly make unsubstantiated or misleading claims about the effects hunting and trapping have on animal populations and the environment in their efforts to sway persons who may not know the facts. Many hunters and trappers have difficulty in responding with appropriate facts to rebut what they know are outrageous claims. This series is intended to help.

Roberta (Bobbi to her friends) Ferguson teaches English literature at City College of New York. Her only trip outside the New York-Philadelphia-Boston megalopolis in her 48 years has been to earn her Ph.D. at Cornell. There she remained tightly tied to the intellectual-academic world she greatly prefers, never sampling the scenic beauties of upstate New York's Appalachian Mountains or the natural wonders of the Finger Lakes region.

Bobbi is single. Her only permanent companions are two neutered Siamese cats; nine-year old Ling-Ling and 13-year old Tsin-Tsin are named after the first two giant pandas brought to the National Zoo from China; an effort to which she contributed a substantial amount of money. The cats' annual veterinary bills alone would provide a semester's worth of grand entertainment for the average college undergraduate. Her only other contact with animals has been at zoos, by watching nature shows on television or by observing the Disney-like human characterizations of animals in animated movies.

Several years ago, Bobbi was contacted through her veterinarian by a group professing to represent the "rights" of animals to a life free of all human domination. Since she had come to consider her cats as family, this group had a strong appeal to her intellectual-emotional view of the animal world. She has since joined a number of similar groups, all of which want to end human exploitation of animals and insure their "humane" treatment.

Bobbi has become more radicalized in her beliefs as she ages. She recently switched to a vegetarian lifestyle for her and the cats and participated in a picketing demonstration at a medical research lab. She doesn't know if her contribution to an underground animal "liberation" movement led to recent vandalism at a meat processing plant, but would be secretly pleased if it did. She is even thinking of leaving her estate to a consortium of animal rights groups.

Bobby Joe Ferguson is a high school dropout who earned his GED in the Army so he could get into electronics school. He didn't finish, but his training later got him his civilian job assembling electronic packages for automobiles in a rural Iowa plant. Married and with two teenage children, he lives on a small, rented acreage and feeds a half-dozen calves to supplement his income.

Bobby Joe grew up in an outdoor-oriented family and hunts and fishes year-around for food and recreation. His formal brushes with the law have been few -- an occasional speeding ticket and a single arrest for public intoxication -- but his attitudes toward fishing and hunting regulations are considerably more cavalier.

By purchasing a license Bobby Joe thinks he has a "right" to hunt or fish to his heart's content. When the ducks are flying, he has been known to shoot as many as he can to make up for the days when his luck wasn't as good. Length limits on bass don't make much sense to him -- a 12-inch fish tastes just as good as one 15 inches long. And he didn't think much about it when two of his after-work drinking buddies got caught night-lighting deer. Their families could use the meat and there are plenty of deer, anyhow.

One of Bobby Joe's proudest hunting accomplishments was shooting a trophy 10-point buck last fall. It didn't bother him that his hunting party had driven it off a neighbor's land who didn't allow hunting, in fact that just added a humorous embellishment to his story of the hunt. He showed off his buck all around the town square, and then let the head hang out of the back of his pickup for all to see while he and his hunting partners toasted their good luck with a few rounds at the local tavern. Now that they know how much a trophy rack is worth to collectors, they have been quietly discussing the pros and cons of night-lighting bucks before the season to help pay their hunting expenses.

Ken Formanek

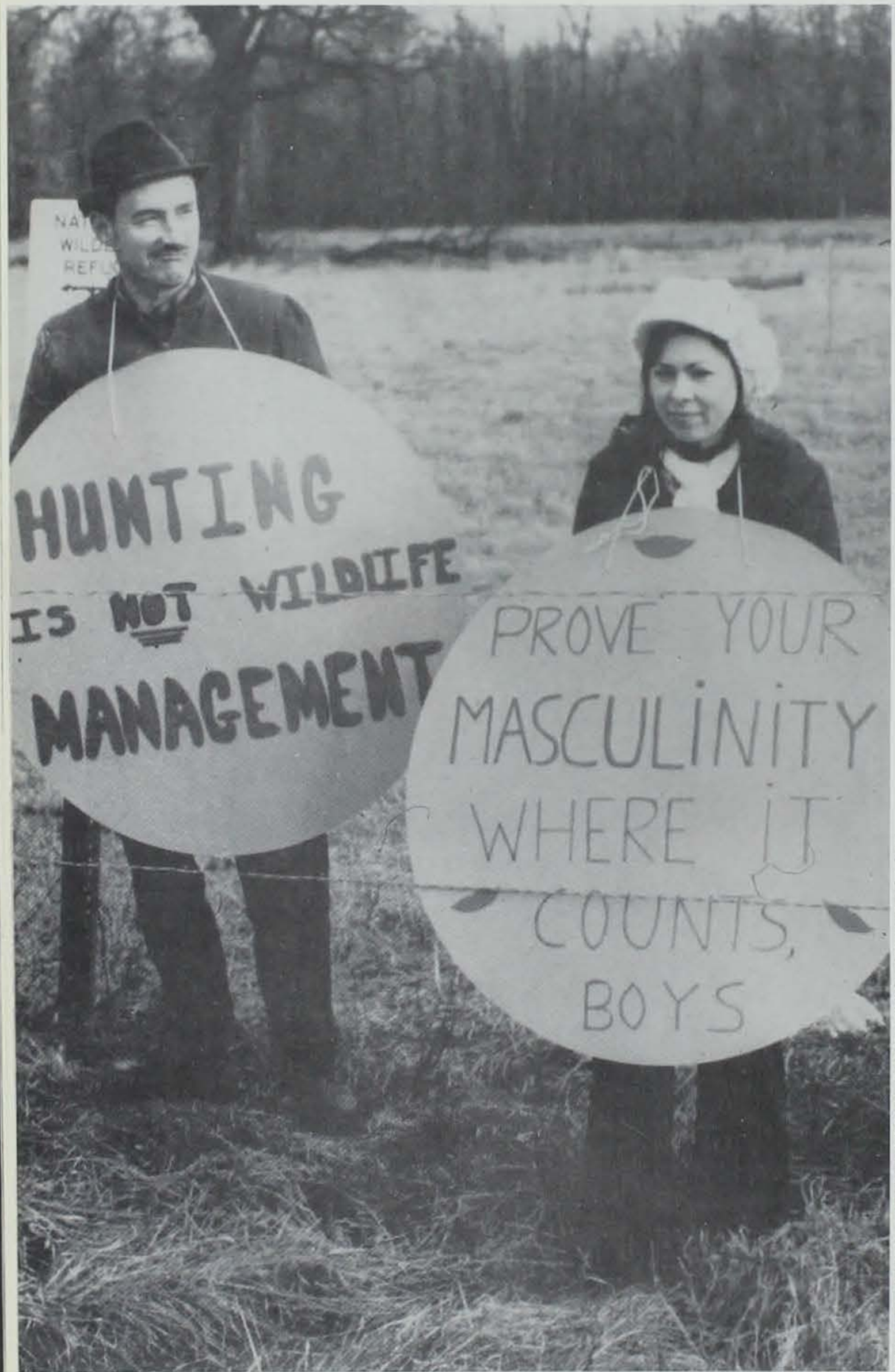


Photo courtesy of U.S. Fish and Wildlife Service and Wildlife Management Institute

Neither Bobby Joe or his friends belong to any conservation organization dedicated to improving populations or habitats of the game animals they love to hunt.

Bobbi and Bobby Joe are, of course, both fictional characters. It is hard to imagine two individuals more polarized in temperament, lifestyle or outlook on life, or less likely to ever have to deal with each other. But they represent the opposite ends of the spectrum in a debate that is heating up as the 20th century wanes over an important aspect of social and environmental policy. How will we as humans treat animals in the future?

Hunters, trappers and, to a lesser extent, those who fish are on a head-on-collision course with animal rights advocates who seek to invest animals with the same rights to life, liberty and the pursuit of happiness that we humans enjoy. Their goals are to bring about fundamental changes in our political, social and economic structure that are much broader than just ending hunting. They advocate a vegetarian lifestyle to end human dependence on animal agriculture and an end to using animals as human stand-ins in medical research, even if it results in greater human suffering. Some even advocate an end to keeping animals as pets. The most radical groups have begun vandalizing medical research labs and meat processing plants or harassing hunters to protest what they view as the unethical treatment of animals. Ending hunting and trapping is one of the first battles in their war to free animals from all human exploitation.

Neither Bobbi nor Bobby Joe are typical in all ways of their respective groups. Most animal rights organizations pursue their goals very aggressively but lawfully. Few hunters would condone Bobby Joe's illegal, unethical or just plain thoughtless activities. More likely they represent each group's stereo-typed vision of the other's members rather than an accurate portrayal of who those members actually are.

Supporters of animal rights groups are mostly white females (two out of

three in virtually every study) from urban backgrounds, well-educated, often well-to-do, holding an executive or managerial position in a large company, living on the East or West Coast and expressing moderate-to-strongly liberal politics. Hunters are nearly all males, rural or from a rural background, educated through high school, and employed in a blue collar occupation (although the trend is towards more well-educated, affluent white collar hunters as America urbanizes).

At least part of the antipathy between the groups may be gender-based. Many animal rights activists are active feminists or express strong support for pro-feminist positions. Hunters are often portrayed in animal rights literature as domineering Daniel Boone types whose male egos demand they conquer nature and who are insensitive to the suffering of animals.

Both groups are among the more environmentally knowledgeable of our citizens. They are concerned about issues like air and water pollution, recycling, and problems with the ozone layer. But animal advocates view hunters as environmentally destructive, blaming hunting and trapping for wanton destruction of wildlife leading to the elimination of many species. Hunters view animal rights advocates as ecologically naive. They are seen as having a very poor understanding of the role humans play as the ultimate predator in food webs and chains. Hunters know that role very well, because they take animals directly from the field to the table.

Interestingly, hunters and animal rights advocates have about equal strength in numbers -- poll after poll show that roughly 10 percent of Americans are sympathetic to the animal rights viewpoint, and about 10 percent of Americans hunt. The vast majority of our citizens are neither vegetarians nor hunters, but polls have consistently shown they are concerned about better treatment for animals on farms, in labs and at home. They recognize the value that the enlightened use of animals has added to humans' physical and social well being and are not yet ready to eliminate these activities. Most American would be better described as animal welfarists, not animal rightists.

Unfortunately for hunters, a substantial portion of the non-hunting majority views hunting in a somewhat skeptical light. Polls have consistently shown that trophy hunting and hunting for "sport" or "recreation" are disapproved of by a majority of those that do not hunt. Only meat hunting has widespread acceptance. Non-hunters that personally know someone that hunts generally feel positive about hunting. Most citizens lack this personal contact and are less certain about its value.

There are many reasons for this disapproval. Trophy hunting has been portrayed by anti-hunters as degrading the quality of big game herds by taking the biggest, strongest males and leaving inferior ones to breed. To some, it also smacks of male machoism and greed. The fact that most big game hunts are held after the breeding season is over and that big game herds are in better shape today than at any time in this century is never mentioned.

Sport hunting is commonly portrayed as trivializing the killing of animals, using them as targets with no more concern than other "sportsmen" shooting baskets or hitting a baseball. The fact that sport hunting refers to a scientifically regulated activity that adheres to laws and a code of behavior designed to assure fair chase and the survival of the hunted populations is never mentioned. And a common claim by animal rights groups that most meat is left in the field to rot has not only been shown by studies to be untrue, it is illegal in most states. Taking home meat for the table is an integral part of hunts that also yield recreational benefits, and sometimes trophies, to the hunter.

The underlying reason that these misconceptions can be successfully perpetuated by anti-hunters, of course, is the rapid pace of urbanization in America. In the 1990s, 75 percent of us live within 100 miles of a sea coast. Most urban dwellers have lost touch with rural hunting traditions. Modern agricultural technology has eliminated the need for most of us to be involved in food-gathering processes. Many urbanites no longer associate meat or poultry purchased in a supermarket with the death of an animal. As a result, an increasingly large segment of otherwise neutral Americans are beginning to question the "need" for hunting to continue. Lacking any personal association with modern, regulated hunting or hunters, and with scant ecological knowledge on which to base a judgement, neutrals are easily swayed towards an anti-hunting position. Staged videos of animals suffering endlessly in traps, misleading or false claims by animal rights groups about

The battle over whether hunting is to continue won't be won by convincing animal rights advocates that hunting is a legitimate activity . . . For hunting to continue, the vast, neutral and so-far mostly silent majority of Americans must be convinced that hunting is a legitimate form of human activity and that it has a place in 21st-century America.

the effects of hunting on animal populations, and *the scurrilous activities of the Bobby Joes of the hunting fraternity* are just a few of the ways that more nonhunters are being influenced against hunting.

Clearly, members of two groups with as different socio-economic backgrounds and world views as hunters and animal rights advocates have little hope of finding common ground. The battle over whether hunting is to continue won't be won by convincing animal rights advocates that hunting is a legitimate activity. Most of them believe in their cause with a religious fervor that no logical argument or scientific fact will shake. Their value systems

simply won't permit a compromise, and the time spent in the effort to convince them will be wasted.

For hunting to continue, the vast, neutral and so-far mostly silent majority of Americans must be convinced that hunting is a legitimate form of human activity and that it has a place in 21st-century America. Unless we as hunters can accomplish this, we stand vulnerable to that most cherished of American institutions, the ballot box. No matter how ecologically or sociologically correct our position, we could find ourselves voted out of existence by a mostly urban plurality of voters swayed by the emotional pleas of animal rights groups.

Hunters can't hide their heads in the sand and hope this threat to their freedoms will go away. Animal rights organizations are increasing in number and taking an increasingly aggressive stance against hunting. Staged hunter harassment actions at high-profile hunting locations, although few in number, have been designed to attract maximum media coverage to their cause. Laws in virtually every state now prohibit such activity, but are no guarantee that they will end. Activists are increasingly seeking ballot box approval and injunctive relief through the courts. Animal rights groups have succeeded in stopping mountain lion hunting in California and spring black bear hunting in several states. An anti-trapping referendum that would have ended nearly all hunting or trapping on public lands in Arizona gained substantial momentum until it was counteracted by a consortium of conservation groups that led a rally to defeat it at the polls. Bow hunting and the leghold trap appear to be next on the agenda, with action scheduled here in the Midwest. (The Minnesota DNR is currently embroiled in action to end all bow hunting in that state). Well-financed and well-organized, animal rights groups will be a force to reckon with for some time to come.

How can hunters respond to this challenge? The assaults of animal rights organizations must be fought at the ballot box and in the courts. The Wildlife Legislative Fund of America and the Proactive Strategies Group of the International Association of Fish and Wildlife Agencies are but two of several groups organized specifically to combat animal rightists' anti-hunting and anti-trapping initiatives. They all deserve our personal and financial support. State and federal wildlife agencies facing legislative battles will need your political support, as well.

But more must be accomplished than just winning these high-profile conflicts. The majority of nonhunters that are not animal rights supporters need to be educated about the role and value of hunting in modern society and this must be constantly reinforced. Animal rights activists will be pressing their viewpoint and we must be sure that objective and ecologically sound information is available to counter their emotional and misleading claims.

Hunters can't rely on support organizations and wildlife agencies alone to sell their message. The most effective way of communicating will be one-to-one contacts with nonhunters as issues arise in their local communities.

To communicate effectively, hunters will need to become better educated about the reasons hunting has a legitimate role in the 21st century and how their activities are viewed by the non-hunting public. To help hunters understand and explain their position, the ecological, cultural, historical and economic roles of hunting in Iowa will be explored more fully in the coming months in future articles in the *Conservationist*.

Terry W. Little is the department's wildlife research supervisor in Des Moines.

IOWA STAMP DESIGNS 1995

The **1995 Iowa Waterfowl Stamp** was designed by Washington artist Cynthie Fisher. A three-time top ten finalist in the Federal Duck Stamp Contest, she won the 1988 Ohio duck stamp contest and was named the Washington Ducks Unlimited Artist of the Year for 1992 and 1994. Iowa Ducks Unlimited coordinates the design selection of Iowa's duck stamp each year. Prints are available by contacting your local DU chapter or state president John Kruse at (712) 732-4370. Or, you may contact the artist by writing or calling Cynthie Fisher at 445 B Prairie Lane, Sedro, Wooley, WA 98284, (206)856-2724. Image size of the print is 6 1/2 x 11, and from the artist the price is $130, which includes postage and handling. Please add $5 if you wish to buy a duck stamp with the print.

Iowa artist J.D. Speltz of Armstrong competed to win the honors of designing the **1995 Iowa Trout and Habitat Stamps**. An ex-high school art teacher, Speltz is the pioneer Iowa artist in what he calls "industrial wildlife" in which he combines natural historic and cultural sites with humans and nature co-existing. He has had an amazing history of working with community and conservation organizations to raise money for them through his unique style of blending wild scenes with their particular interest in the human side of things. That's what he's done for the trout and habitat stamps. The brown trout is displayed in front of the historic Manchester hatchery building which was built in 1896, then replaced with the current building in 1960. The pheasant is coming out of some stream-side cattails near the old mill and dam at Fertile. Both prints are 6 1/2 x 11 inches. Cost is $39.95 for each, including postage and handling for the regular edition print; $49.95 for the artist proof. Add $5 if you wish to have a habitat stamp and $10 for the trout stamp. The trout print is an edition limited to 150 (15 artist's proofs) and the habitat stamp is limited to 300 (30 artist's proofs). Be sure to ask about Speltz's framing options. You can buy them by reaching Speltz at (712) 864-3001 or write him at Speltz Studio of Wildlife, Box 391, Armstrong, IA 50514.

REAP Takes A Historical Perspective

by Patricia Ohlerking

Of REAP's $7.9 million allotment for fiscal year 1995, five percent will go to the development of Iowa's historic resources.

Through funding from the Resource Enhancement and Protection program, the Historical Resource Development Program, commonly known as HRDP, is now in its sixth year. The Historical Society's vision for the program includes helping individuals, businesses, nonprofit organizations, Indian tribes, local and state government agencies, and Certified Local Governments in enhancing the preservation, conservation and interpretation of historical resources in Iowa. In doing so, HRDP also supports the economic and cultural health of the communities where historical resources are located.

This REAP program has been used to award more than 300 grants totaling more than $3 million to applicants who are working hard to save Iowa's historic resources.

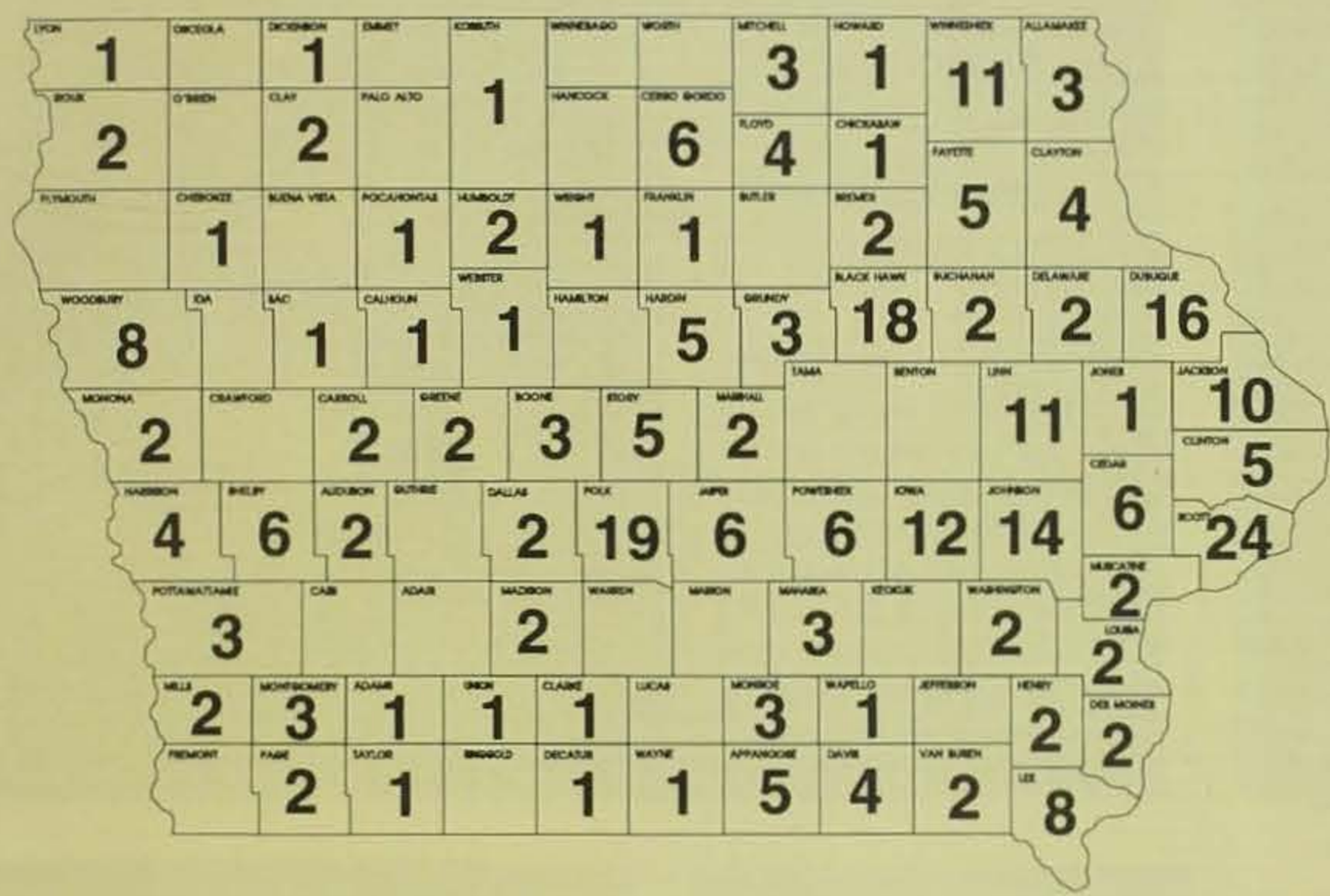
Grant applications are due on June 1 of each year. Projects may be funded in three categories -- historic preservation, museum and documentary collections. They are forwarded to a panel of professionals who review and score each application. Funding recommendations are made to the State Historical Society's board of trustees who look at the geographic distribution of funds before making final recommendations for funding to the Historical Society administrator. Grant awards are announced in September. Grant recipients may take up to two years to complete their projects.

Once under contract, regular project monitoring begins. The Historical Resource Development Program is a cost reimbursement grants program which means that funds are first spent by the applicant. After submitting proper documentation, funds are reimbursed to the grant recipient.

Successful projects include the restoration of the Keokuk Union Depot to a useful public purpose. Once completed, the restored depot will be a community space used for festivals, exhibits and riverfront development. Located in Lee County, the Keokuk Union Depot represents the high point of railroading in southeastern Iowa. In addition, the depot was designed by the architectural firm of Burnham and Root of Chicago. With the passing of railroad transportation in the community of Keokuk, the opportunity to restore and rehabilitate the depot will usher in a new era in Keokuk waterfront history with the redevelopment of parks, a riverboat museum and the railroad depot.

The Henry Ambler House, located in Henry County, is another example of the impact of REAP funding. The house is significant to Iowa history because it is a rare and outstanding example of the Italian villa style of architecture. The structure was severely damaged by fire in 1983 and was sadly neglected. When the present owners, David and Debby Cordes,

Historical Resource Development Progam
Grants Awarded 1990-1994



purchased the home, they became committed to restoring it. Without REAP/HRDP funding, the restoration would have taken five to ten years longer to complete. The visual impact of this restoration has undoubtedly served to raise considerable interest and desire on the part of other people in Mt. Pleasant to take care of their historical resources.

The Jasper County Historical Society has successfully recreated the interior of a 1930s home, complete with appropriate furnishings and artifacts. The 1930s were an important time in the history of Iowa -- a time when people lived with the Great Depression. Through this exhibit, located at the Jasper County Museum in Newton, children are given the opportunity to compare how they live today with how children growing up during the 1930s lived.

Living History Farms, Inc., located in Des Moines, has recreated, furnished and interprets a millinery on the main street of its 1875 town of Walnut Hill. Women on the Iowa frontier did not have ready-made

Ken Formanek

▼ **Kitchen area of the 1930s home replicated at the Jasper County Historical Museum in Newton.**

clothing. When fashion dictated that women wear hats when appearing in public, even small communities employed a woman or two who made ladies' hats. The exhibit provides an opportunity to tell the story of ladies' hats and fashions as well as to explore with visitors the economic and social realities of women's lives in nineteenth century Iowa.

The microfilming of the Dubuque City Council Records for the period 1837 to 1890 by the Center for Dubuque History at Loras College has made available to researchers some of the oldest municipal documents located in the state of Iowa. The 27 bound volumes have not previously been accessible to the public. In fact, few people were aware of their existence. Because of REAP/HRDP funding, these important resources are now located in the Carnegie-Stout Public Library, at the City Hall clerk's office, and at the Center for Dubuque History at Loras College, all located in Dubuque. These resources are also available at the State Historical Society of Iowa in Des Moines.

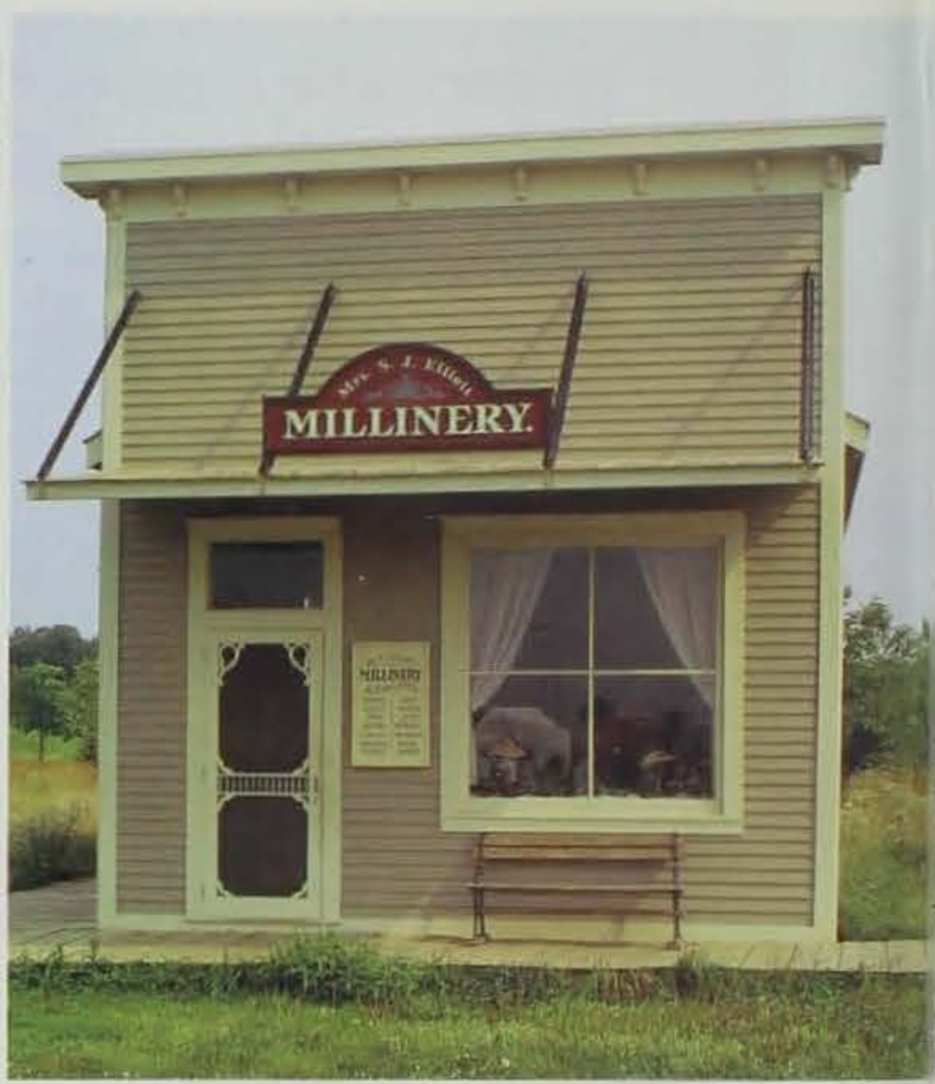
The Amana Heritage Society was able to identify and catalog more than 500 pieces of Christian Metz correspondence and diaries. Metz (1794-1867) was an important leader in the Amana community. This collection documents and illustrates the history of the Amana Colonies settlement. They provide an important cultural and educational resource for the community and the state.

It is through projects such as these that Iowans may continue to learn about and understand our history. It is only in understanding where we come from that we can understand where our future lies.

To find out more about the Historical Resource Development Program administered through the State Historical Society of Iowa, you may contact the HRDP coordinator at 515/242-6194.

Patricia Ohlerking is chief of the community programs bureau of the State Historical Society of Iowa in Des Moines.

Steve Davis



Through a REAP grant, Living History Farms in Des Moines was able to recreate this 1875 millinery on its Walnut Hill main street. Interpreter Diane Hayes not only creates hats for the store, but explains what life was like for Iowa women in the nineteenth century.

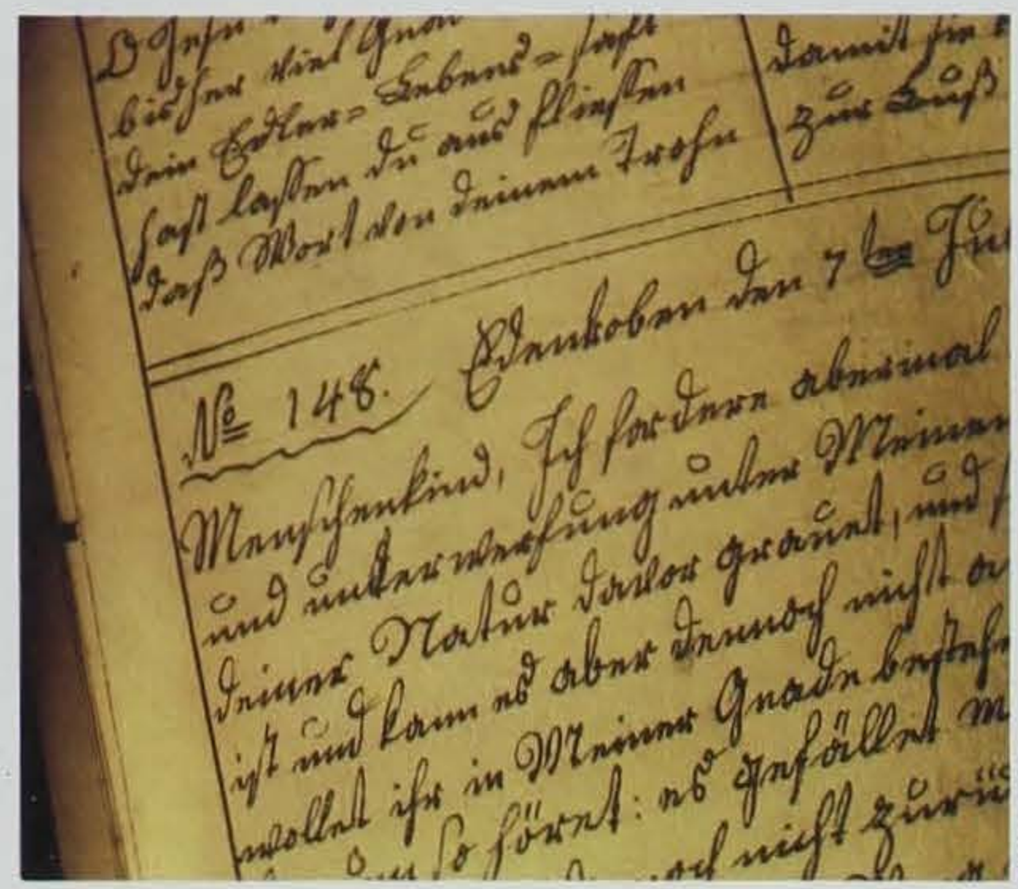
Steve Davis

Cordes photo

Cordes photo

▲

REAP funding was used in the preservation/restoration of the Henry Ambler house in Henry County. This rare example of the Italian villa style of architecture is significant to Iowa history.



Mike Fager

▲

Christian Metz was an important leader in the Amana community. This page from one of his manuscripts is a good illustration of the old German script in which all of the material is written.


low
CO
Iowa
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MONDAY
TUESDAY
WEDNESDAY
THURSDAY
FRIDAY
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1994 Energy Leaders

Article and photos by Patricia S. Cale, energy information coordinator

Beyond State of the Art
The Center for Energy and Environmental Education, University of Northern Iowa, Cedar Falls
Architects Wells Woodburn O'Neil, Des Moines

A new building on the University of Northern Iowa campus in Cedar Falls is "beyond state of the art," according to Morris Mikkelsen, UNI's director of facilities planning. By building in daylighting, passive solar, recycled and low-energy materials, high efficiency equipment and natural ventilation, the new Center for Energy and Environmental Education will cut its energy use in half, even by state of the art standards. It will use just a third of the energy used by the typical campus building.

More importantly, the building will embody the environmental and natural principles to be taught on its grounds. The facility will serve as a statewide center and vehicle for developing and demonstrating energy and environmental education methods for students, teachers and the general public. The building itself will be a lesson as it showcases energy efficiency, renewable energy and natural materials.

In design, siting and construction, the center speaks of harmony with the environment. Located at the edge of campus, it is incorporated into a prairie and forest preserve that will serve as an outdoor classroom. The materials used on the building exterior include locally quarried stone, brick, concrete block and unpainted metal.

Large windows and skylights open the building to the outside sky, trees and prairie. On the inside, wood, stone and colored concrete, lit by the many windows, create warm and inviting spaces. Unlike in most modern buildings, classroom users can open the windows for natural ventilation.

Planning of the construction was a joint effort between UNI staff and the architects, Wells Woodburn O'Neil. The UNI committee was a diverse group from science, industrial technology, education and wind energy programs. "This building has multiple functions -- to teach, to gather research and to serve as a resource center," said Mikkelsen. The architects also used the services of the Weidt Group, an energy and environmental consultant.

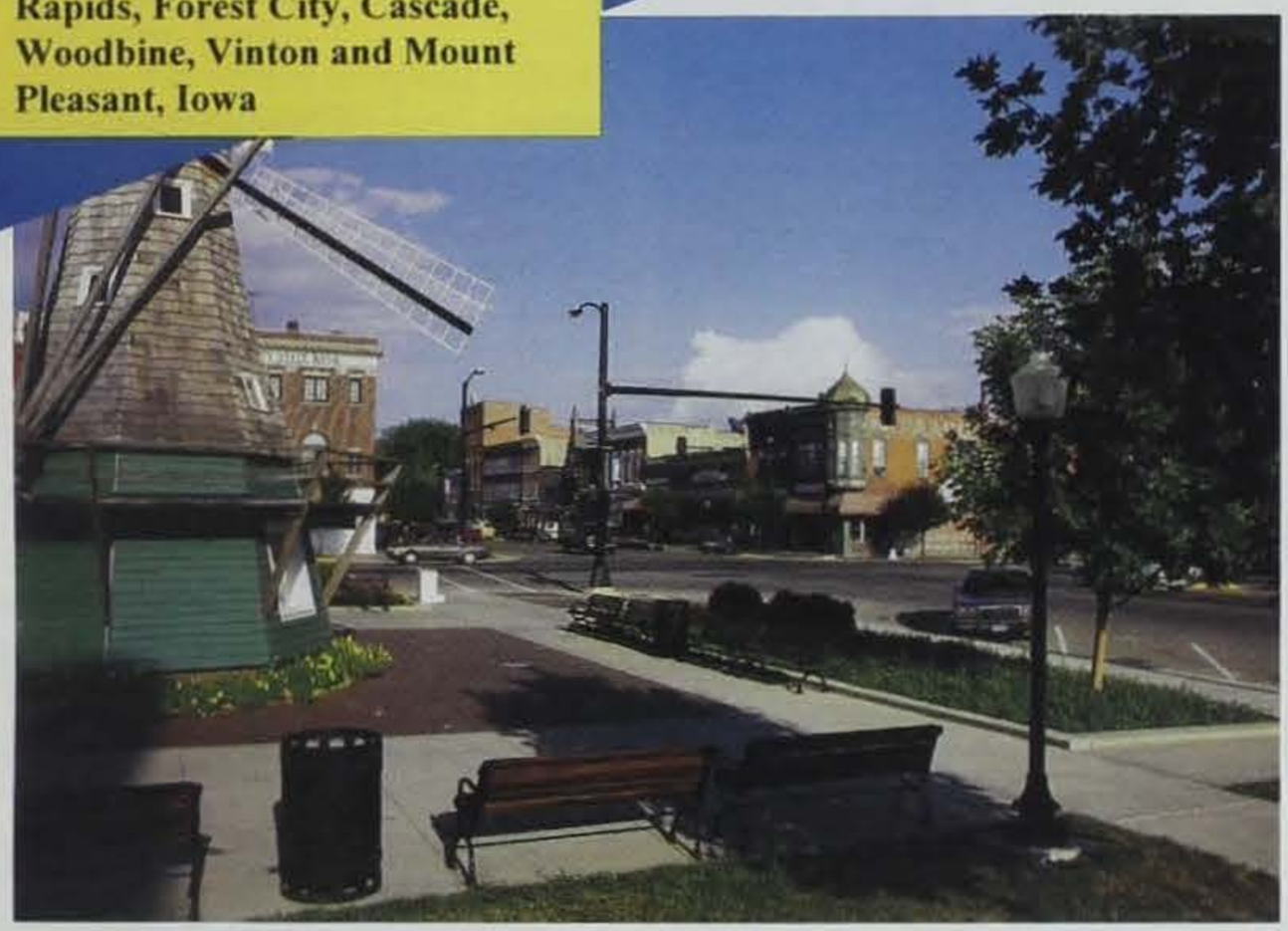
The Center for Energy and Environmental Education is open for fall classes at UNI. With the building opening, it will begin to demonstrate the benefits of going "beyond state of the art."

Natural, low-energy, low-maintenance materials are used throughout the Center for Energy and Environmental Education. They are both beautiful and durable. Windows and skylights effuse the center with sunlight. This solar power both lights and heats the building.

An Economic "Shot in the Arm"

The Options 2000 Program
Iowa Association of Municipal Utilities
Corning, Hawarden, Pella, Rock Rapids, Forest City, Cascade, Woodbine, Vinton and Mount Pleasant, Iowa

The Options 2000 program helps communities such as Pella learn how to use energy efficiency to meet their own economic development goals. Tim Power, IAMU efficiency planner, develops educational materials for each Options 2000 community, with brochures, newspaper ads and business manuals.



Does saving energy really make a difference in local communities? Options 2000, a program established by the Iowa Association of Municipal Utilities (IAMU), is proving that it does. The Options 2000 program shows how the business of energy efficiency provides an economic "shot in the arm" in Iowa cities. It also shows communities how to use energy efficiency to meet their own goals for economic development.

For example, in Corning, the municipal utility encouraged its customers to install more efficient equipment such as compact fluorescent lights, furnaces, air conditioners, low-flow showerheads and water heater blankets. The utility provided $20,000 worth of rebates for recommended energy efficient equipment, in the form of "chamber dollars" that could only be spent locally. The response was so great that the utility ran out of rebate dollars within two weeks. The effort generated nearly $200,000 in sales to local retailers and suppliers.

The key to success such as this, according to Tim Power, energy efficiency planner for the IAMU, is "a bottom up approach where community members are active in the development and implementation of their own program." Options 2000 staff launch the program in each community by setting up a local task force. Task force members help design the program for their community by discussing local energy issues, setting goals and developing marketing strategies.

The Options 2000 program uses tools such as an energy/economic profile and a computer program to help task force members gain an understanding of various energy efficient technologies and how they can economically benefit the community. The profile examines energy use in residential, commercial and industrial sectors, energy prices, retail sales and local income compared to Iowa and U.S. averages. With this information, the computer program finds the best mix of energy efficiency measures to meet economic development goals.

The business community is brought into the process through meetings with the task force. Local retailers are asked which energy products they can stock, and contractors are informed about working with energy efficient equipment.

An energy efficiency business plan serves as a "how to" guide for the community's efforts. This plan is presented to the community at public meetings, giving the opportunity for more local input. "If you let the community have a say in the development of a program," said Power, "residents gain a sense of ownership, and participation is all the more likely to follow."

Each community participating in Options 2000 is different, so each energy efficiency plan will be geared to its unique needs. Corning's analyses indicated that focusing on the residential and commercial sectors would generate the most savings and economic activity. In Pella, however, research showed that because large customers use 50 percent of the city's electricity, the emphasis should be on helping them cut energy costs. As a result, the utility will provide energy audits to customers such as the Pella Corporation, Vermeer Manufacturing and Pella Community Hospital.

Since Options 2000 was launched in 1992, communities across the state have been lining up to participate. To expand the program, the IAMU will hold a series of statewide workshops next year, teaching communities how to develop their own Options 2000 program.

Independent Living

The Stanley Home
Homes for Life, Inc.
Fairfield, Iowa

Homes for Life design team includes (left to right) Keith Cobb, Phil Scott, John Burgess and Deepak Bakshi, shown in the Stanley home's greenhouse. An array of solar panels and a wind turbine provide all the electricity needs of the Stanley residence.

No power lines run into the Stanley home, under construction outside of Fairfield. The home is designed to be powered independently through its solar and wind systems. In fact, the home will be self-sufficient in many respects, with its own water sources, waste treatment and a greenhouse for growing food.

The project is a cooperative effort between the future owners, John and Petra Stanley, and a new company called Homes for Life. Their goal is to create a home that is energy efficient in every aspect, draws upon renewable resources and provides a living space that is harmonious for both the residents and the natural environment.

"We are taking a holistic approach," said Keith Cobb, president of Homes for Life. "The design, construction, materials, orientation and power systems all have to go together" to promote energy self-sufficiency, comfort and health.

Some of the features of the Spanish-style home include:

Earthen walls. Earth dug on-site was used to form 20-inch thick pressure-stabilized earth block walls with a four-inch insulated central cavity.

Passive solar design. The house is oriented to take full advantage of solar heating. A greenhouse on the south end captures additional heat which will be circulated through the house.

Solar photovoltaic electricity. Sixty-six solar panels generate 2,000 watts of clean electricity per peak daylight hour.

Wind generator. A 1,000-watt wind generator stands on the hill north of the house. Power is stored in a battery array in the garage.

Solar hot water system. Five solar hot water collectors provide heat and hot water for the residence.

Radiant heating. Terra cotta floors are heated by hot water pipes embedded in the concrete slab underneath. A backup propane hot water heater is available.

Water supply system. The house has three sources of water: a rainwater catchment system, a deep well and a nearby pond. Water is filtered in a unique flowform system that mimics natural filtration in streams. The water is purified before use.

Earth-tube fresh air system. Fresh air is brought into the home through tubes buried eight feet. Drawing on the earth's stable (55-60°F) temperature, summer air is cooled and winter air is heated before it enters the home.

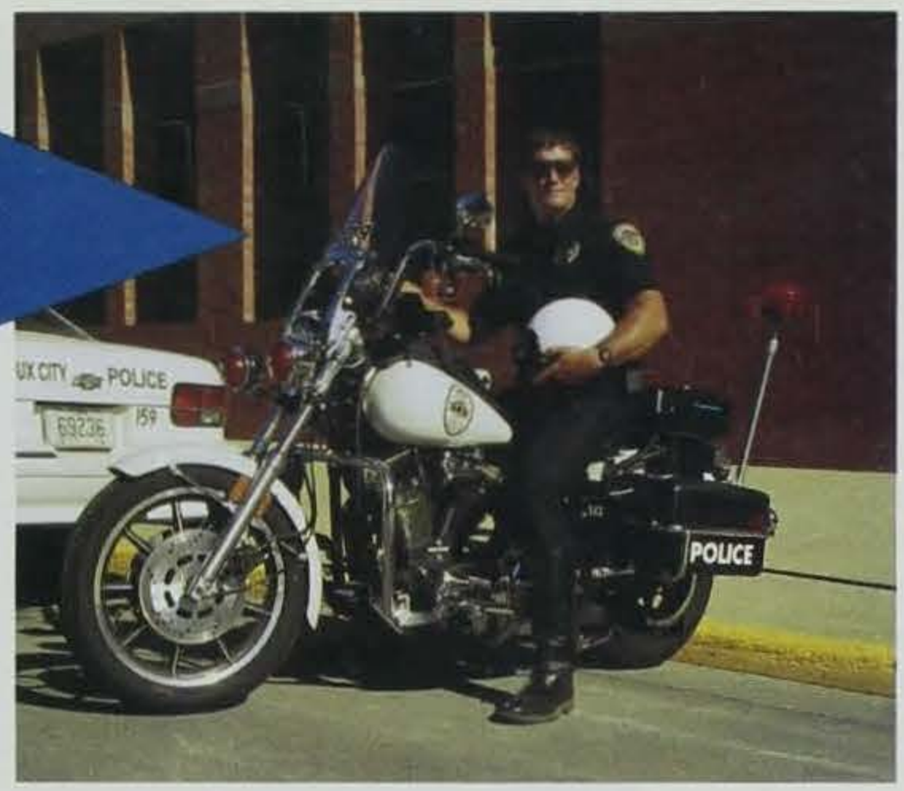
Greenhouse. Food can be grown year-round in the solar-heated greenhouse.

Solar chimney. A 12-foot long solar chimney induces a convection current to draw excess heat out of the greenhouse during summer months.

Although most of the technologies in the Stanley home have been used before, the Homes for Life project is unique in combining and integrating so many different energy efficiency and renewable energy techniques. The cost for special energy features such as have been incorporated into the Stanley residence will increase the cost of a home by about 15 percent, according to Cobb. However, this initial investment can often be recovered in less than 10 years, and in the long-run, result in substantial savings for the homeowner. Earth-friendly homes can be constructed in all price ranges.

Planning Efficient Government

Regional Approach to Energy
Siouxland Interstate Metropolitan Planning Council
Sioux City, Iowa



Officer Chet O'Neill of the Sioux City Police Department patrols city streets on an 85 percent ethanol-fueled Harley-Davidson, one of two the department owns.

SIMPCO is no newcomer to saving energy. The Siouxland Interstate Metropolitan Planning Council has actively promoted energy management to local governments in its region since the energy crises of the 1970s. SIMPCO is a council of local governments serving 70 city and county in northwest Iowa, northeast Nebraska and southeast South Dakota.

SIMPCO's services concentrate on helping local governments operate more efficiently and effectively. Saving energy is an important part of government efficiency. For that reason, SIMPCO has been involved in every aspect of government planning that can reduce energy use. The organization has offered programs in transportation planning, waste management and recycling, building conservation, load management, street light replacement and energy audits.

"We've completed improvements in city and county facilities throughout northwest Iowa," said Don Meisner, SIMPCO's executive director. Many of those improvements were accomplished through the use of an innovative revolving loan fund created in 1985. Local communities borrowed money to make energy investments, then repaid their loans with their energy savings. That concept is now used statewide for public facilities through the Department of Natural Resources' Iowa Energy Bank Program.

With energy saving programs well-established, SIMPCO has recently moved into the arena of renewable energy. SIMPCO helped obtain ethanol-powered vehicles for the Siouxland area. In a first for the state of Iowa, the Sioux City Police Department is operating two 85 percent ethanol-fueled Harley-Davidson motorcycles. Traffic control officers Mark Wyant and Chet O'Neill patrol city streets on their alternatively fueled "hogs."

Woodbury County is also the first local government in the state to operate 85 percent ethanol-fueled cars. SIMPCO purchased the two E-85 Ford Tauruses and provided them to County Sheriff Dave Amick. The Sheriff's Department has put one of the cars into service for the D.A.R.E. program, a drug education effort for schoolchildren. The car, decorated with D.A.R.E. logos and slogans, as well as "Powered by 85% Ethanol," is highly visible thoughout the county.

"I am really excited about the possibilities for ethanol in northwest Iowa. I think everyone has to be here," said Meisner. "We want to promote ethanol."

SIMPCO's energy programs were created in response to the first energy crises in the 1970s. Now the organization is helping the Siouxland region prepare for future needs. "We need to fully develop our renewable resources to be ready for the next energy crisis, because there will be a next energy crisis," Meisner said.

Dan Jenkins, Sioux City Transit Coordinator (right), shows SIMPCO Executive Director Don Meisner one of the city's new, smaller buses that will save fuel and provide more flexible routing.

Taking Local Responsibility

Community-Wide Energy Efficiency Program
Sioux Center Municipal Utilities
Sioux Center, Iowa

Sioux Center's industrial park brings in jobs and income to the community and diversifies its economy. Keeping energy costs low stimulates economic development.

Energy problems are worldwide in scope but their impacts are both local and immediate. Therefore, local communities have to take the lead in creating energy solutions. That's the philosophy behind Sioux Center's long-term, successful effort to cut energy use throughout the city.

Sioux Center Municipal Utilities has played a lead role since the 1970s in helping homeowners, businesses, schools and industries use less energy. Its primary methods have been to serve as an example, to educate and inform, to support private activity and to listen to community wants and needs.

"All actions should be designed to maintain Sioux Center's attractiveness as a place to live and do business," states one of the municipally owned utility's guidelines. "Energy efficiency can enhance the quality of life for the benefit of everyone," explained Ron Horstmann, energy efficiency coordinator.

Everyone who comes into the new city hall/utility service center walks into a working demonstration of energy efficient technologies, from compact fluorescent lamps in the offices to radiant heat in the maintenance garage. The utility takes efficiency out to Sioux Center residents and businesses as well, making presentations, providing energy audits, distributing hot water heater blankets and sending informational bill stuffers.

Education has been a key element of Sioux Center's success. "If people understand the cost-effectiveness of an efficiency measure, they'll do it themselves," said Horstmann. Up to 95 percent of the community is participating in some of the utility's programs.

One program is much appreciated, even though unlike other voluntary programs, it is mandatory. The city enforces the building code's energy provisions by reviewing builders' plans before construction. A building permit is given only when the plans meet the state Model Energy Code. "We haven't built a home with a two-by-four wall in Sioux Center since 1980. Homeowners come in and thank me for their low heat bills," said Horstmann, who also serves as building inspector.

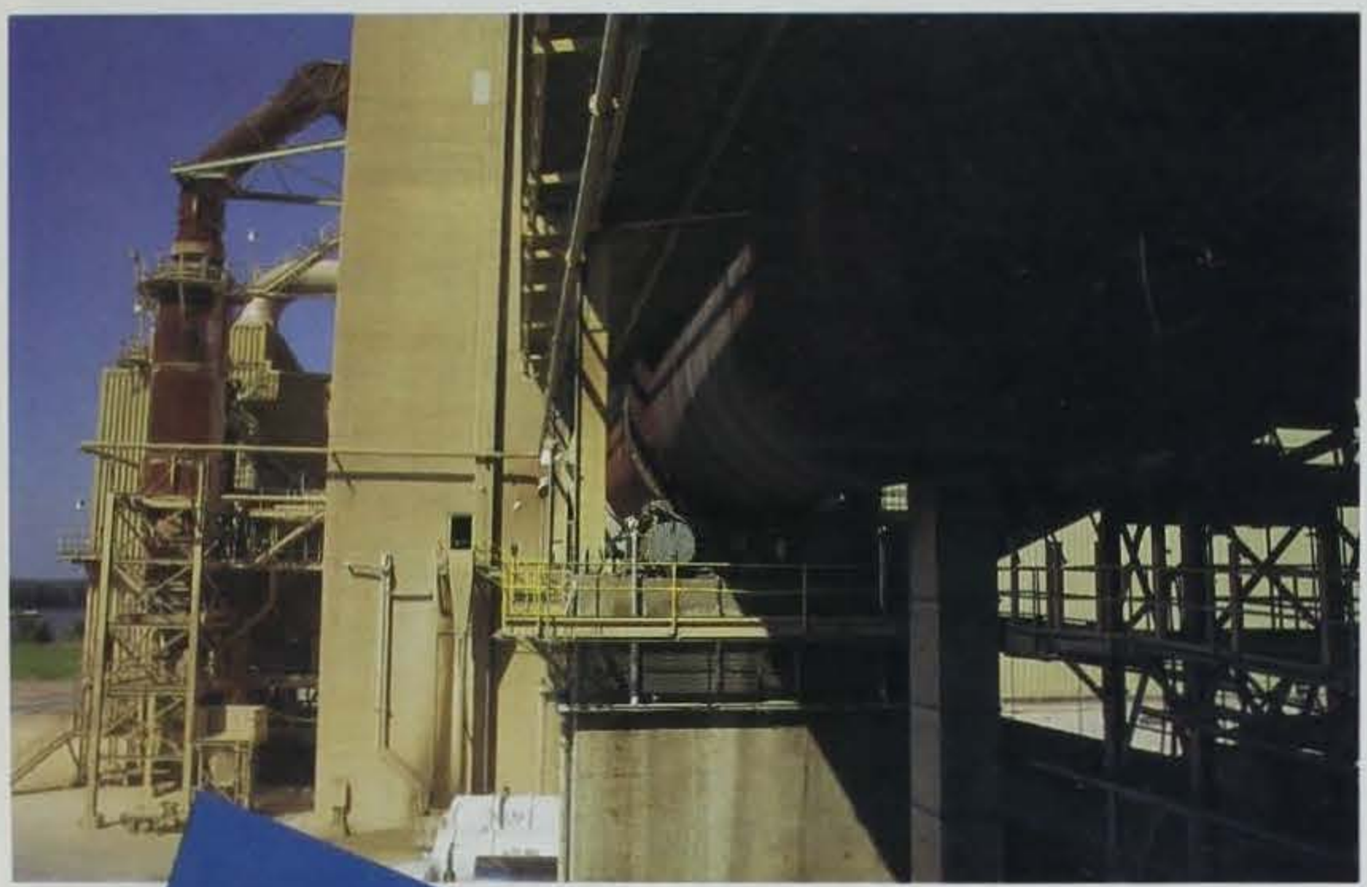
Sioux Center's success at energy management benefits not just homeowners, but businesses as well. An industrial park north of the city includes new and expanding industries such as Link Manufacturing, Nobl Labs and Tyson Foods. The utility works closely with its industrial and commercial customers.

Energy efficiency has been a primary focus for the city, but not the only one. Sioux Center has been involved in two major renewable energy projects. First, methane produced by the wastewater treatment plant is recovered and burned for heat and electricity. Second, the junior-senior high school operates a waste-to-energy boiler, using fuel from a local industry.

Quantifying the impacts of energy efficiency and renewable energy is difficult. The utility estimates a community-wide, documented savings of more than $2 million. However, that doesn't include other benefits such as jobs, economic activity, lower taxes, a cleaner environment or improved quality of life.

"We are dependent on one another's welfare to prosper in our community," said Horstmann. "With community cooperation, we have accepted the challenge of improving our future through energy efficiency."

New homes built in Sioux Center save their owners money in energy costs, because Ron Horstmann, as city building inspector, makes sure they meet the energy code.



Making cement involves heating, cooling and grinding operations, all of which are highly energy-intensive. The Lafarge Corporation's Davenport cement plant is a model for energy efficiency, reducing waste and using renewable energy resources.

Cementing the Future
Cement Plant
The Lafarge Corporation
Davenport, Iowa

With a fuel bill reaching $4 million per year, "you can imagine that we're eager to find ways to reduce our energy costs," said Gail Hoffman, human resources manager for the Lafarge Corporation's Davenport cement plant. Producing cement, which involves heating, cooling and grinding operations, is highly energy intensive.

The Lafarge Davenport plant is finding energy cost reductions by installing higher efficiency motors and lighting, recycling waste heat from the kiln that heats the cement and using variable speed drives on the fans that cool the product. In addition, the company is exploring the use of waste products that can be both incorporated into the cement and burned as a replacement for coal.

Rebates from the company's utility, Iowa-Illinois Gas and Electric, helped underwrite Lafarge's investment in more efficiency. The company will have received nearly $200,000 in rebates this year for installing efficient lighting, motors and drives. According to Hoffman, the rebates were a "substantial consideration" in the company's effort to reduce its energy consumption by 10 percent.

As the second largest producer of cement in North America, Lafarge is a leader in its industry and a pioneer in the development of a technique called co-processing, or recycling of waste into product or into fuel. By using non-hazardous waste products, Lafarge gains a low-cost source of raw materials, keeps materials out of landfills and replaces some of the 15 tons of coal per hour the plant burns.

Some of the co-processed materials include fly ash, foundry sand, materials from oil refineries, contaminated soil from leaking underground tank sites and gasification sites and iron mill scale. The intense heat of the kiln consumes the waste materials while extracting their mineral and energy values.

Test burns also were conducted last year on scrap tires and non-recyclable plastics. "Tires and plastics are great fuels," said Hoffman. "They're practically pure oil." In the first test, 12,000 whole tires were burned, replacing up to 20 percent of the coal normally used. The second test involved burning 80 tons of plastics that could not be recycled. After monitoring indicated no emissions problems, the company has applied for a permit to continue burning the tires and plastics.

The Lafarge Corporation owns 15 cement plants in the U.S. and Canada. The Davenport plant employs 121 people and produces 900,000 tons of cement per year.

By increasing energy efficiency and finding new uses for waste products, the Lafarge Corporation is cementing the future -- its own future economic competitiveness, the future of a clean environment and our nation's future energy resources.

DNR photo

▲ ▶

The Mississippi is probably best known for its walleye fishing opportunities in the late winter/early spring and early summer months.

DNR photo

Fishing the Mighty Miss

by John Pitlo

The Mississippi River forms Iowa's eastern boundary for 312 miles, providing nearly 200,000 surface acres of water for Iowa recreationists to enjoy. This recreation ranges from boating, swimming, water skiing, camping, hunting and sight-seeing to one of the most important -- fishing. The mighty river offers an incredible variety of habitats to fish and thus many opportunities to anglers.

Fish habitats range from quiet backwater lakes and slow-moving side channels to the deep, swift tailwaters, main channels and wing dam areas. Different fish species relate to these habitats at different times, and each species seems to get active and "turn on" at different times. I'll start in the late winter and move through the year with suggestions on when and where to find various fish species and some of the fishing methods used to catch those fish.

Late Winter and Early Spring

One of the best-known fishing events in Iowa and the Midwest is the annual "run" of walleye and sauger into tailwater areas below locks and dams. Fishing for these two species usually peaks in March and April. Depending on river stage and water temperatures, these fish spawn near the end of April and then disperse throughout the pool before returning to the tailwater area the following fall. Most anglers use jig and minnow rigs or three-way (Wolf River) rigs to troll or drift in eddies or over flats when fishing the tailwater area.

There is usually a short period during March, just after ice-out and before the peak of the spring flood, that snagging for huge paddlefish is excellent. These fish range from 15 to 50 pounds and can really give a tussle. Paddlefish disperse with spring floods and move back into tailwater areas in the fall period. Stout rods, 30-pound test line, large treble hooks and a strong back and arms are necessary to catch one of these fish.

About the time the walleye and sauger are spawning, northern pike fishing begins. Northern pike are one of the earliest spawners in the river and have recuperated from this effort and are ready to feed. These fish spawn and remain for a period of time in backwater lakes and slow-moving side channels near beds of flooded vegetation. Baits should be worked slowly around stumps, logs, brush and weed beds. Spinner baits, in-line spinners and big-bodied crank baits seem to work the best. Northern pike are underharvested, and there are literally thousands to be caught, especially in Pools 9, 10 and 11.

Spring

Bullheads begin moving into the shallow waters as the water warms to the 50s. Fish are in shallow backwater lakes, in bays, along edges of trees and brush, in flooded drainage ditches and, if the water is high enough, in flooded farm fields. I have seen excellent catches of large bullheads come from flooded corn and soybean fields during May. A nightcrawler fished on the bottom is still the best way to catch a mess of bullheads.

Crappies can be caught as soon as the ice goes out, but some of the best fishing occurs when fish move into spawning areas. Water three to six feet deep with little or no current is ideal.

Fish small minnows on tube or hair jigs near fallen trees, brush piles and log jams. It's a must to fish near some type of cover for crappies. Fish around anything that looks as if it might provide some cover. Crappie are a schooling fish, and if one is caught, there is a good chance that more are in the immediate area.

Late Spring and Summer

Largemouth bass become more active as the water warms in May and June. Backwater lakes and sloughs are best, with fish located around stumps, brush and weedbeds in shallow water.

In colder water temperatures, slow-moving lures such as jigs with pork rind or plastic worms seem to work better. As the water warms, spinner baits and weedless spoons and lures work better, especially in the heavy weedbeds that develop during the summer. Largemouth bass move extensively in the spring. Holding areas such as isolated weed beds, brush piles at the head end of islands, and single stumps with extensive root wads can really hold fish. During the summer, largemouth bass set up definite home areas and do not move around. Summer homes for largemouth bass are dense stands of vegetation in fairly shallow water. In the summer, we have regularly located radio-tagged largemouth bass in dense stands of arrowhead in one and a half feet of water, with water temperature in excess of 80°F. Bass will stay in these heavy beds of vegetation for the summer and move to backwater overwintering areas in the fall.

Bluegills are active throughout the year, but some of the best fishing occurs in June during the spawning period. Again, shallow lakes and sloughs, around stump fields and weed beds, hold the fish. If the river is normal to low, excellent catches of bluegills can be taken from wing and closing dams during late June and July. Most anglers anchor above the wing dam and drift garden worms (red worms) or small pieces of nightcrawler across the rocky face of the structure. Small hooks, light line and just enough split shot to reach the bottom will do the trick.

As water temperatures warm into the high 50s and into the 60s, catfish become more active and begin biting, not that catfish don't bite earlier. Good catches of catfish can occur in early spring on cut-bait. Also, at spawning time (June), anglers have excellent luck drifting a gob of nightcrawlers below a slip bobber along rock rip-rap. But some of the best catfish fishing is during the hot summer months. Most catfish are taken from areas with some current. Side channels with log jams and brush piles are excellent places to start. Anchoring above a brush pile and drifting a bait into it works well. Other good areas to try are above and below wing dams and in running sloughs. During the summer, any bait seems to work well -- nightcrawlers, chicken livers and entrails, shrimp, beef liver and many prepared baits. One of the most effective and easiest to use are the cheese and blood dip baits used on special plastic "ring" worms. Rig most of these baits with a sliding egg sinker.

Walleye move onto wing dams and other rock structure in late June, if the water is low enough. Anglers often troll a Rapala or Shad Rap along the top and rocky face of wing damsto catch these fish. Other anglers prefer to anchor and cast crank baits. Other angers use electric motors to move along the front of the wing dam and cast jigs dressed with leeches. Still another method is trolling backwards on the upstream side of the wing dam with a big nightcrawler, leech or minnow-imitating plug on a three-way rig. Whichever method appeals to you, stay active, fish one dam or piece of lateral rock for 15 minutes, and if you get no bites or fish, move to another area.

Freshwater drum fishing reaches its peak during the heat of the summer when fishing for most other species slows. Most drum are caught from boats anchored near the main channel or main channel border, around wing dams and sandy flats. They are active bottom feeders and readily take a gob of worms or crawdad tails for larger fish. When you fillet these fish, be sure to trim the gray colored meat along the top of the fillet as this can give the fish a strong flavor. Try this fish on the grill, blackened, with special Cajun cooking spices. You just might change the species of fish you go after.

Late Summer and Fall

White bass fishing can be super around wing dams, rock piles and rip-rap banks during the late summer and early fall. Small spinners, jigs and minnows, and small crank baits seem to work the best. And, when a school of "stripers" are located, fishing can be fast and furious. White bass anglers keep a sharp lookout for surface boils, rolls or splashes as white bass tend to drive bait fish to the surface as they feed on them.

When the hunting seasons open in October, there is a noticeable decline in anglers on the river, and at times, long stretches of river are without human activity. Walleye and sauger begin moving back towards the tailwaters, as do paddlefish When fishing tailwater areas in the fall for walleye and sauger, it is not uncommon for anglers to enjoy 30 to 40 fishable days. Usually there are good numbers of small fish and

Lowell Washburn

▲ **Some of the best catfish fishing is during the hot summer months along side channels with log jams and brush piles.**

DNR photo

◀ Freshwater drum fishing reaches its peak during the heat of the summer when fishing for most other species slows.

▼ Just after ice-out and before the peak of the spring flood, snagging for huge paddlefish is excellent.

Ken Formanek

anglers will have to be selective in what they keep. Now is a good time to catch a trophy walleye from wing dams as the larger females feed heavily to develop eggs in preparation for next spring's spawning.

October is also a good time for largemouth bass. These fish begin moving toward preferred wintering areas and good numbers can be found holding to prominent structure. Largemouth bass seem to be more tolerant of current at this time, and running side channels with slow-moving currents can be especially productive. Small cuts with some medium currents connecting backwater lakes and sloughs can be fantastic at times. Fish the edges of the current, and if there are stumps or logs present, so much the better.

Winter

Once backwater lakes and sloughs begin to ice-over, the ice fishing for bluegill and crappie begins. The best backwater lakes will be those with no current and sufficient depth to support fish through the winter period. The best catches occur during the first month of ice-over, just as soon as the ice is safe enough to walk on. Light line (two- to six-pound test), small jigs and teardrops tipped with a grub, wiggler or minnow take panfish from cover such as old weed beds, stumps and brush. Don't overlook the use of several tip-ups to take some nice northern pike, especially in the more northerly pools.

Although the backwaters may be ice-covered, lock and dam tailwater areas that remain open are still productive. Depending on the severity of the winter, as much as one mile of open water offers good walleye and sauger fishing, especially if a January or February "thaw" occurs.

Most anglers use smaller boats during the winter because the boat ramps may be frozen and it is much easier to slide a 14-foot flat or v-hull boat across the ice. Heaters are common and necessary to warm wet hands, melt ice from fishing rods and to warm coffee and sandwiches.

The "Ole' Miss" provides Iowa anglers with some of the widest variety of fishing opportunities available. If you have fished it before, come and get reacquainted, if you have never fished it, you are missing one of the most diverse fisheries in the nation.

John Pitlo is a fisheries research biologist for the department at Bellevue.

Homes for Retired Tires

Article by Brian Tormey • Photos by Ken Formanek

What goes around, comes around. After going around 40,000 to 60,000 miles, depending upon how well you took care of them, the tires on your vehicle may come around your way again in a variety of shapes and uses you cannot imagine.

During the past three years, recycling markets for waste tires have tripled. In 1990, only ten percent of the waste tires that were generated in the U.S. had markets. According to the latest statistics released by the Scrap Tire Management Council, approximately 33 percent, or 80 million, of the estimated 242 million waste tires generated nationally in 1993 (with an estimated 2.8 million of these discarded by Iowans) found retirement homes in the recycling marketplace. (It should be noted that waste tire statistics exclude the 33.5 million tires that are currently retreaded each year, and the 10 million tires which are sold as used tires.) The downside of the equation is that the majority of the tires discarded in this country continue to spend their retired years in landfills, stockpiles or illegal dumps.

Disposing of whole tires in landfills is a poor management option. When buried, the tires tend to trap the gases produced in the landfill and become buoyant. Over time, they will float to the surface and puncture the landfill cover. This creates a nightmare for the operator as once the cover is broken, the landfill's contents are exposed to insects, rodents and birds, and methane gas is vented into the atmosphere. Tires also occupy large volumes of valuable landfill space. For these reasons, the land disposal of whole tires has been prohibited in Iowa since July 1, 1991.

Illegal dumping and stockpiling of waste tires pose serious health, safety and environmental problems. Whole tires serve as ideal breeding grounds for disease-carrying rodents and mosquitoes, including the Asian tiger mosquito which can transmit dengue fever and strains of encephalitis. Tire piles are extreme fire hazards. Once ignited, tires can burn out of control for months, releasing a heavy, noxious cloud of black smoke, and a hazardous oily residue that can contaminate neighboring surface and groundwater. And, because tire manufacturers are constantly striving to improve upon the indestructible nature of their product, a tire carelessly tossed into a field or ravine becomes a permanent addition to the Iowa landscape.

Ironically, some of the attributes which make the waste tire an environmental culprit when improperly disposed, are the same qualities that produce a champion when it is placed within the recycling loop. Its durability and resiliency allow it to be employed in the manufacturing of industrial-use products, civil engineering applications and road construction projects. The petroleum content in tires (each passenger tire contains about two gallons of oil), which deems them as incendiary time-bombs in uncontrolled settings, makes them an excellent supplemental or primary energy source for heat or power generation.

The end uses for waste tires can be categorized by the processes that transform them into a marketable material. These processes range from the very simple, such as using the whole tire itself as the final product, to the complex, whereby the tire is reduced in stages until the final result is very fine crumb rubber material having the consistency of corn starch.

Reuse of Whole Waste Tires

A rope, a tree with a sturdy branch, and an old tire are a combination that has been used by Iowans for many years to produce an inexpensive piece of recreational equipment. Besides playground equipment, whole scrap tires are also used for fencing, erosion control projects, crash barriers and as boat dock bumpers. Large tractor tires can be inverted to make indestructible feed bunks and water troughs for livestock. But whole tire markets represent less than one-tenth of one percent of the waste tires generated annually.

Specialty Products From Cut Tires

Many specialized products are fabricated from strips or pieces of waste tires. Some of these applications require very exact materials produced by die-cutting or punch-pressing machinery. Specifications may limit use to the rubber from the sidewall or tread portion of the tire, or to only non-steel-belted tires. Examples of such products include floor mats, machinery belts, gaskets, shoe

soles, muffler hangers, washers, marine chain covers and electrical insulators. Precision cut pieces or strips can be laminated together to make loading dock bumpers, wear pads for bucket loaders, and fence posts.

Two Iowa companies, Mar-Rob Enterprises in Duncombe and Pella Industries in Pella, use die-cut waste tire material to refurbish corn husking rollers for farmers and seed corn companies. It takes about three bias ply tires (no steel belts) to produce enough of the ridged, donut-shaped disks to make one roller. In an average crop year, 50,000 Iowa waste tires are recycled through these operations.

Chipped or Shredded Tires

The shredding process reduces waste tires to chips ranging in size from six-inch to slightly less than one-inch squares, depending upon the capabilities of the processing equipment. Most of the waste tires recycled in Iowa and across the U.S. are processed in this manner, and are primarily sent to facilities that burn them as a supplemental fuel. Shredded tires used in this manner are called tire-derived fuel (TDF). Other uses where chipped tires have shown to be suitable include: civil engineering applications; as a gravel substitute for playground surfaces; as a bulking agent in wastewater treatment sludge composting operations; and, perhaps the most unusual, as cow mattress fill material.

Tires have an energy, or fuel, value of 12,000 to 16,000 BTUs per pound. For comparison, coal typically ranges from 8,000 to 13,000 BTUs per pound. TDF can constitute two percent to 20 percent of the fuel mix in coal-fired industrial or power utility boilers. When used as a supplemental fuel in cement kilns, up to 30 percent of the fuel may be TDF. The capability to burn tire chips and the actual fuel mix is dependent upon the characteristics of the boiler or kiln.

At present, 25 cement kilns, 12 pulp and paper mills, and eight coal-fired facilities across the nation are using TDF on an ongoing basis. A similar number of firms in each category have conducted test burns or expressed an interest in using tires as a supplemental fuel.

In Iowa, a cement producer in Mason City, Holnam, Inc., has burned TDF since last summer. Currently, about ten percent of Holnam's fuel is comprised of two-inch and smaller tire chips. If the company achieves the planned 30 percent TDF usage level, it would use the equivalent of four million passenger tires per year. Since 1991, the University of Iowa's Physical Plant has periodically burned an eight percent mix of TDF in one of its boilers. Other companies in the state that have conducted test burns or are examining the potential of this alternative fuel include Cargill, John Deere, Midwest Power and the Ag Processing Corporation.

Most of our experiences with burning tires come from pictures of smoldering stockpiles emitting clouds of black smoke. But if you drive by the Holnam Plant in Mason City and look up at their stacks, you may be surprised to see nothing at all. The results of test burns and continuous monitoring at facilities burning tires have shown no significant changes in air emissions with TDF use. In many cases, emission rates for heavy metals, nitrogen oxide and particulates are actually lowered with the use of tire chips. And, if a facility is burning a high sulphur coal, the TDF supplement will reduce its sulphur dioxide emissions -- the principle contributor to acid rain.

Besides taking advantage of its BTU value, cement kilns offer additional recycling benefits for waste tires. Power plants and industrial facilities require tire chips that, at an optimum, are 95 percent free of wire and steel. Cement kilns view the steel as a valuable substitute for the iron ore that is required to be added into the Portland cement making process. The high temperatures (2,600 to 3,200 degrees Fahrenheit) and long residence times of kilns virtually reduce 100 percent of the tire chip into ash, which is added into the final cement product.

Before leaving this market area, it should be mentioned that there are a limited number of facilities that can burn whole tires. Available technology allows some cement kilns to use whole tires as a supplemental fuel. Lafarge Cement near Davenport plans to start using such a system this fall.

The fastest growing market area for shredded tires is in civil engineering applications. The largest single project to date is a joint effort between the Virginia Departments of Transportation and Environmental Quality. A mixture of almost 2.5 million shredded tires and soil are graded into 20-foot embankments for constructing a highway overpass. The project is expected to demonstrate how the use of tire shreds, which are lighter than soil, can enable embankments to be constructed on unstable surfaces. For similar reasons, research is being conducted on the use of tire chips as backfill in hillside retaining walls to reduce the stress on these structures.

Tire chips have other unique properties which enable them to be used for constructing roads in problem areas. Because of their light (near buoyant) weight and good drainage characteristics,

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One product derived from crumb rubber is an outdoor surface such as this rubber-tiled play area (top). Providing better drainage than some conventional surfaces, tire chips are also a popular groundcover for playground equipment.

they are being used as a sub-grade road stabilization base for roadways in marshy and soft wetland soil environments. An interesting pilot project in Maine found tire chips are effective insulators against frost penetration when used as roadbed material in gravel roads. With the spring thaw, gravel roads are prone to buckling, potholing and rutting as the moisture retained and frozen in the subsurface soils during the long, frigid winter begins to melt. The placement of a six-inch layer of tire chips under 12 inches of gravel reduced the normal frost penetration depth by almost 50 percent. While there are still some questions that need to be answered regarding performance and potential risks to water quality, what is not at issue is the ability of this type of project to gobble up waste tires. The equivalent of 20,000 tires were used in the 600-foot test section which translates to more than 175,000 tires per mile of construction.

Even simpler applications for shredded tires are as groundcover material under playground equipment and backyard swing sets, for jogging and hiking trails, in horse show arenas, on parking lots, and as an additive to mulch in gardens and around shrubs to aerate the soil. For playgrounds, the tire chips provide more cushioning, are softer and don't compact under repeated foot-traffic, as compared to wood chips, dirt, sand and gravel. From a safety perspective, school officials appreciate these qualities. In addition, they provide better drainage than the conventional types of groundcover. To ensure that this product will not present any hazards in play areas, only bias ply or steel free tires are used. Since bias ply tires currently make up a small (less than 20 percent) and shrinking portion of the replacement tire market, finding enough tires to produce the product may be a problem.

Besides playgrounds, an "udder" market has recently been found for this material -- fill for cow stall mattresses. The mattresses, made from a woven polyester/nylon or polypropylene fabric, are being marketed as a safer, less costly bedding alternative for dairy livestock. The original idea was to fill the mattresses with cedar chips, straw, sawdust or a combination of these. However, rubber fill from shredded tires has proven to be the best. The resiliency of the rubber provides permanent protection against compacting and hollowing, problems commonly found with sawdust and straw. Also, as a bacteria-free medium, the rubber fill does not have to be periodically replaced, thus reducing bedding costs. Due to the difficulty in finding a sufficient number of bias ply tires, some purchasers of cow mattresses are on a waiting list for the rubber fill. And, as a result, there are a number of cows counting sheep while restlessly awaiting the ultimate in bovine comfort.

Crumb Rubber From Waste Tires

Crumb rubber is produced by grinding the shredded tires into pieces that range from 3/8-inch down to particles the size of sand or silt. Producing a quality crumb product necessitates the removal of the steel belting and most of the reinforcing fiber from the shredded

tires. Add to this the cost of the specialized equipment needed to produce a particle with the desired dimensions, you can see that making crumb rubber is no simple or inexpensive task. Besides the added processing expense, products made from this material usually require more testing and development, as well as marketing, before gaining wide acceptance. Therefore, simple economics is one of the biggest challenges facing companies considering the use of recycled crumb rubber. To be successful, these firms must target the added value the rubber component provides to existing or new products. Finished products which have crumb rubber content include: outdoor athletic surfaces, truck bed liners, railroad crossings, roofing materials, carpet padding, vehicle mud guards, landscape timbers, recycling and trash bins, garden hoses, building blocks and asphalt pavements.

Some products incorporate the rubber from waste tires with other recycled materials. A Denver, Colorado company, JaiTire Industries, has introduced a turf management system, REBOUND, that combines crumb rubber with finished organic compost. The product is blended into soils to produce a long-lasting soil conditioner that decreases compaction, enhances drainage, and promotes root development. It has been used successfully on athletic fields, outdoor concert arenas, and heavy traffic areas on golf courses (cart paths, tees, driving ranges and walkways). In California, a sound barrier wall made from recycled plastic bottles and crumb rubber is being tested along a 200-foot stretch of a Hollywood freeway. The rubber, used to fill the center of the extruded plastic walls, has excellent sound absorption properties. Besides performance benefits, the manufacturer estimates that the recycled wall costs $1.1 million per mile versus the $1.5 million for masonry walls.

Recycling Services Associates, located in Jefferson, Iowa, is using granulated plastic from recycled milk jugs and crumb rubber to produce landscape timbers. Because of the characteristics inherent in the rubber and plastic, these timbers are not susceptible to the deterioration caused by moisture and insects which plagues their chemically treated wooden counterparts. The timbers can be cut, drilled or bolted together for a multitude of uses around the home including retaining walls, planters, terracing and decorative borders.

As is true with most recyclables, the key words in waste tire recycling is market development. While this process is still unfolding, there is considerable room for entrepreneurs seeking to develop untapped niches in the marketplace. Last year, the DNR, through its Landfill Alternatives Grant Program, awarded funding for an innovative pilot project that involves the manufacturing and testing of railroad ties made with waste tire crumb rubber and a special concrete. Each year, about 12 to 15 million railroad ties need to be replaced. Conventional ties are wood timbers treated with creosote, a known carcinogenic substance. Besides being a source of contamination to streams and groundwater while in place, discarding used, chemically treated timbers is a problem since they cannot be landfilled or burned. The railroad industry has also experimented with concrete ties made with Portland cement. Besides concerns about the cost of this material, the ties have been shown to be susceptible to premature stress cracks. Researchers hope to show that due, in part, to the rubber additive, their product, called Eco-Tie, will outper-

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Waste tires can provide a number of products to the recycling loop, including (clockwise from lower left) landscape timbers, organic compost, carpets and mats, corn husking rollers and crumb rubber.

Most of the waste tires recycled in Iowa and across the U.S. are shredded, and are primarily sent to facilities that burn them as a supplemental fuel.

What Consumers Can Do To Minimize Waste Tires

According to the state's solid waste management hierarchy, the most preferred method for managing waste is to reduce the amount that is generated at the source. Ratings compiled by the Center for Auto Safety show that an ordinary tire can be safely used for 68,000 to 80,000 miles. Yet, according to the National Tire Dealers and Retreaders Association, the average American car owner gets between 35,000 to 40,000 miles of use from a tire. So with only one-half of their design life expired, most tires are relegated to the scrap heap, suffering from the two most common causes of tire death -- improper care and neglect. By using the following tips, you can contribute to reducing the number of waste tires generated.

- MAINTAIN PROPER TIRE PRESSURE -- Too much or too little air shortens the life of a tire. Tires should be inflated to the vehicle manufacturer's recommended air pressure. You should also check your car owner's manual for any special situations, such as extended highway travel, that may require different inflation. Most of all, check tire pressure every two weeks with a hand gauge when the tires are cold. Invest in a tire gauge, because service station air pump gauges are often inaccurate.

- KEEP WHEELS BALANCED -- An out-of-balance wheel will be literally pulled out of shape at high speeds, causing uneven and premature tire wear.

- ROTATE TIRES REGULARLY -- It's important to rotate tires frequently (every 4,000 miles) because tires do not wear evenly on all four wheels. Tires on the rear axle wear down 30 to 100 percent faster than those on the front axle, unless your car has front- or 4-wheel drive. If that's the case, the front tires will show more wear.

- KEEP WHEELS ALIGNED -- Improperly aligned tires can increase tire wear tenfold over normal use. Check alignment frequently if you drive often on rough roads.

- BUY THE CORRECT SIZE OF TIRE -- When buying new tires, make sure they are the size that is recommended by the car's manufacturer. Tires are sized by diameter and width and are rated by their weight-carrying capacity. A tire that is too small for the vehicle, for instance, would carry too much weight and wear out faster.

- AVOID SUDDEN STOPS AND STARTS -- Smooth driving habits prolong tire life and save gas. When you stop or start abruptly, rubber tears off the tire at the road surface. Even normal stop-and-go traffic wears away tire tread seven times faster than steady driving.

- AVOID EXCESS SPEEDS -- High-speed driving builds up heat in the tire, which can rapidly deteriorate rubber. A study of truck tires showed that a tire which lasts 80,000 miles driven at 40 mph only lasts 32,000 miles driven at 60 mph.

- AVOID CORNERING AT HIGH SPEEDS -- "Squealing" tires at corners drastically shortens their mileage life. It's also a clear indication that one is taking a corner at a higher than recommended safe speed.

- CHECK TIRES OFTEN FOR DAMAGE -- Inspect your tires at least once a month for punctures, cracks and signs of abnormal wear. To promote long tire life, have all tire repairs made on the inside of the tire.

These simple and inexpensive procedures will help protect the investment you have made in your tires, increase your gas mileage, provide you with better car handling, and most of all, reduce the number of waste tires generated.

How the Recycle Your Old Tires

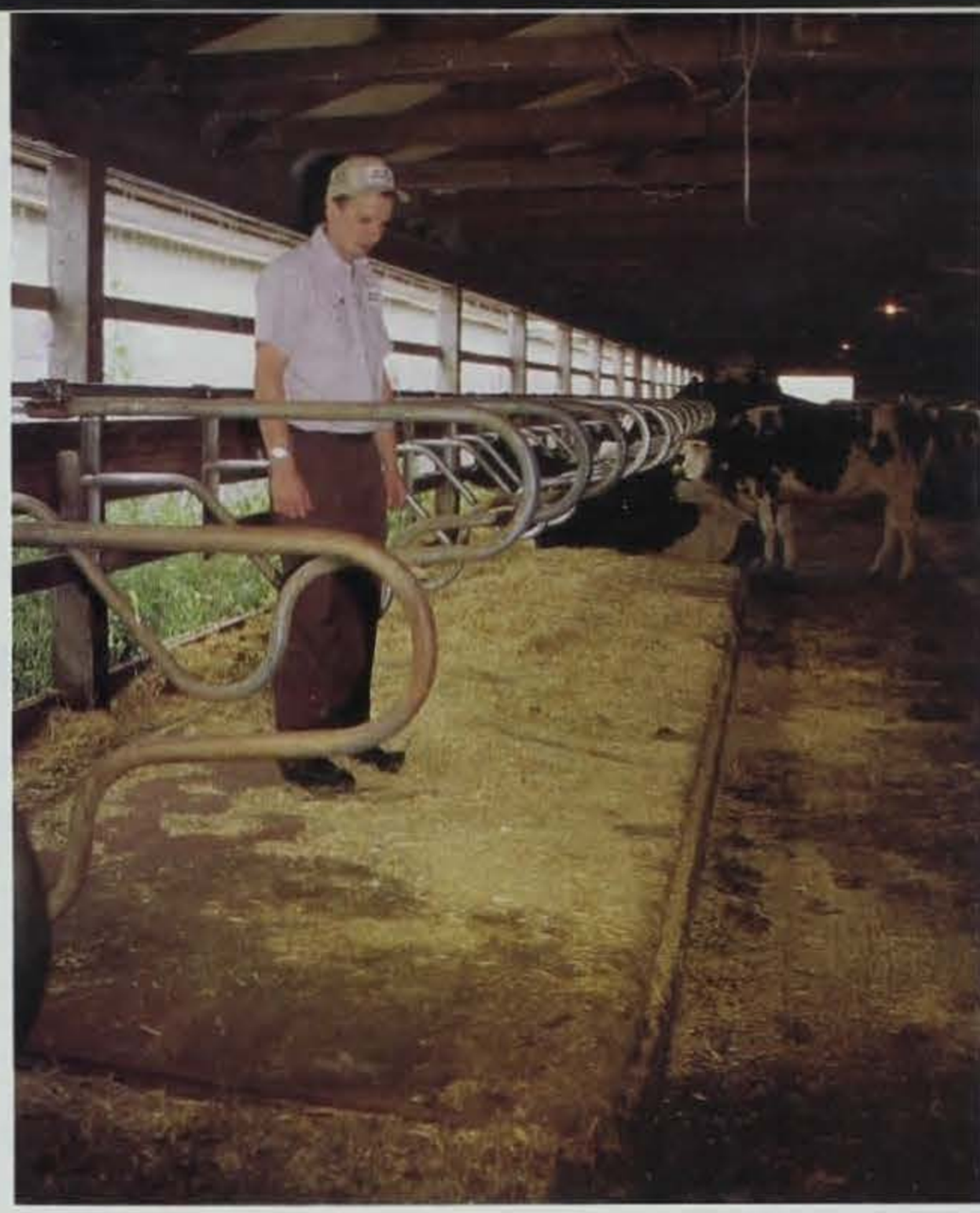
Many tire retailers and service stations will accept your old tires for a small fee when you purchase new tires from them. And while landfills are no longer in the business of burying tires, most of them will take waste tires for the purpose of sending them off to a processor. The typical fee for passenger tires at these outlets is $1 to $2 per tire, and is designed to cover transportation costs and the processor's tipping charge. Discarded truck and tractor tires will cost slightly more. If you need further information for a location near you, contact your local recycling coordinator, or call the Waste Management Assistance Division at 1-800-367-1025.

form wood and concrete ties, while eliminating the environmental and disposal problems of chemically treated timbers. At present, the equivalent of one waste tire is used in the production of each experimental tie.

The largest single use of crumb rubber is as a modifier in asphalt road construction. There are two basic processes used to get the rubber into asphalt pavement. The wet process blends the crumb rubber with asphalt cement prior to incorporating this binding substance with the aggregate materials. The wet process can use approximately 1,600 tires per mile of two-lane road. The dry process mixes the crumb rubber with the aggregates before the mixture is charged with conventional asphalt cement. This process uses between 8,000 to 12,000 tires per mile of two-lane road.

Crumb rubber has been researched as an additive in asphalt pavement due to its engineering properties and not from a waste tire disposal perspective. Proponents claim that adding rubber deters cracking, rutting, aging and icing, resulting in a pavement that has a longer life and enhanced performance qualities. While most state departments of transportation (DOTs) have conducted experimental projects with rubber-modified asphalt (since 1991, Iowa's DOT has completed seven pilot projects), only a few have committed to using these processes as standard engineering practices. The major barrier limiting its use is the higher cost when compared with conventional asphalt. Over the lifetime of the road, the benefits provided by the rubber-modified asphalt may prove it to be cost effective. But most test roads have been constructed only in the past few years, and long-term performance results are simply not available. This makes it difficult for state and local governments to justify the high initial costs for the projects.

In 1991, the U.S. Congress passed the Intermodal Surface Transportation Efficiency Act (ISTEA), which was looked upon by many as the catalyst that would move rubberized asphalt from the experimental stage to standard DOT practice. In part, ISTEA required all state DOTs to use crumb rubber in at least five percent of their 1994 asphalt paving projects for which federal funding is provided. The minimum use requirement escalates each year until reaching 20 percent for 1997 and each year thereafter.



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Shredded tires are being used as fill for cow stall mattresses. The mattresses, such as this one at the Land O'Lakes' Answer Farm near Webster City, are made from a woven polyester/nylon or polypropylene fabric, and are being marketed as a safer, less costly bedding alternative for dairy livestock.

Many states and the asphalt industry feel that due to the data limitations, there are too many questions left unanswered, and further research should undertaken before the mandate is enforced. While at present ISTEA is still law, its future is unclear as Congress elected not to provide the U.S. DOT with appropriations to implement, administer or enforce ISTEA in 1994. The good news with ISTEA is it has triggered extensive research activities on the use of crumb rubber in asphalt paving. The outcome of these studies may help to break down many of the current barriers.

Now that you know of the many existing and potential uses for waste tires, please don't get the idea that someone out there is going to pay you for those old tires. Transforming whole tires into a marketable material comes at a cost. The task for the waste tire processor is to break down an object that was designed to be indestructible. Equipment needed to meet this challenge does not come cheap. And these financial obligations increase geometrically as the desired particle size becomes smaller. What all this means is that to recycle your old tires, processors must charge a nominal tipping fee. This explains why we still have more than 2.5 million tires sitting in stockpiles across the state -- to get the tires to the available markets, someone must pay.

So, after miles of safe and dependable service for you and your family, when those old tires no longer have the tread to do the job, don't just put them out to pasture (by all means, NOT the pasture!). Instead, start them on their way to a productive retirement by paying a few dollars for their round-trip ticket through the recycling loop. While they may no longer be able to accompany you on those weekend outings, your paths may cross again at a playground, on the road to grandma's house, or perhaps, reflected in the eyes of a contented cow standing by the wayside.

Brian Tormey is an environmental specialist with the department's Waste Management Assistance Division in Des Moines.

Hunting Safely

Tips to Keep You Safe and Make Sure Your *Only* Hunting Memories Are Happy

Hunting can be one of the world's most enjoyable pastimes. A good hunt lets you return home safely with pleasant memories of good sport, good company and good times in the outdoors and maybe even some "food for the pot" to go along with your great stories.

Not practicing safe hunting can result in memories that can haunt you for a lifetime. Accidents can happen in many ways, such as when a firearm is moved around in a vehicle, when a hunter crosses an obstacle unsafely, when shooters cannot see their buddies or mistake another hunter for game or when exposure to the elements causes hypothermia.

The best route to hunting safely is very simple -- **plan your hunt and hunt your plan**. Smart hunters know the causes of accidents and prevent them. They can also safely deal with accidents if they do happen.

Making sure that hunting is a safe sport for everyone also involves storing your hunting equipment safely in your home when it is not in use. The basic home safety storage rules, listed on page 51, are simple and easy to follow.

Taking the time to plan helps ensure that you will be around for years to come to enjoy more hunts, gather more great memories.

In planning your hunt:

- **Tell someone where you are going and when you plan to return.**
- **Never hunt alone.**
- **Wear proper clothing and carry proper equipment.** Wear gear that meets the blaze orange requirements for the season you are hunting and that is appropriate for the weather. Dress in layers. Getting wet due to changing weather conditions or falling into water can induce hypothermia that can be just as deadly as a firearm accident.
- **Take along a compass and map of the area.**
- **Plan your hunt so you can return to your car or camp one-hour before dark.**
- **Know how to build a fire and carry fire-starting materials.**

When in the field:

- **Always know where members of your group are.**
- **Treat every firearm with the same respect due a loaded firearm.**
- **Control the direction of your firearm's muzzle. Be careful when handling, storing or sharpening hunting broadheads.**
- **Identify your target and what is beyond it.** When using firearms or a bow never take an "over the hill shot" at disappearing game.
- **Be sure the barrel and action are clear of obstructions and that you have only ammunition of the proper size for the firearm you are carrying. Use a bow stringer for recurve or long bows.**
- **Unload firearms when not in use.** Leave actions open. **Place arrows in a covered quiver.**

- **Never point a firearm at anything you do not want to shoot.** Remember that safeties are not foolproof. They are never a substitute for safe firearm handling. **Do not "play" with bows and arrows by pointing at someone or straight up.**

- **Never climb a tree, or jump a ditch or a log with a loaded firearm or walk with a nocked arrow.**

- **Never shoot a bullet at a flat, hard surface or water.**

- **Do not use alcoholic beverages or other mood-altering drugs before or while shooting.**

- **Remember horseplay can result in a serious injury or death. Firearms, arrows and hypothermia can all be deadly.**

In the home:

- ***All* firearms in the home should be kept unloaded.**

- **Never handle or show guns without first carefully checking to be sure they are unloaded.** Guns need to be checked carefully by ***each*** party who handles them. Make sure the action is open and keep it open until you put the gun back into storage.

- **Keep all guns under lock and key and/or equipped with trigger locks.** Stow rifles and shotguns securely in racks or cabinets with a lock. Store handguns in a locked drawer or cabinet. Standing a gun in the corner of a closet or placing it in a shoe box in a drawer or the closet are not safe storage practices. If you do not have a proper storage area purchase trigger locks. To protect your investment, store guns in a dry environment, away from moisture so that dampness does not rust the metal and heat does not "bake" the wood so it cracks or splits.

- **Keep your ammunition in a separate location and under lock.** Store your ammo in another room or on another floor.

- **Avoid horseplay whenever you handle firearms.** Guns are not toys and must always be handled with respect. Point the muzzle in a safe direction. Depending on the situation, either "up" or "down" may be the safest direction.

- **Store hunting broadheads safely where curious visitors, especially small children, cannot easily find them.** Hunting broadheads are extremely sharp and should be stored in a container specifically designed for them.

- Unsafe storage or handling of hunting knives may also cause accidents. Wipe the blade with an oiled cloth to prevent rusting, then **store the knife in a sheath in the same secured cabinet you store your firearms.**

Iowa Promotes Pedal Power

Iowa police departments are exercising an alternative mode of transportation these days . . . pedal power.

These departments, which are so heavily reliant on transportation, are using patrol bicycles to cut down on fuel costs and pollution and to better patrol our streets at the same time. Officers get a chance to advance public relations, improve department morale and most importantly, perform their jobs more efficiently.

"It puts less miles on the patrol cars, saves us money and of course saves energy," said State Capitol Complex Police Captain, Stephen Lambert, referring to the state's two year-old bike patrol program. The complex police employ nine full-time officers who work rotating schedules -- patrolling by bike, foot or police car. Lambert sees saving fuel as an added fringe benefit to the state's bike patrol program.

According to Lambert, other advantages include: accessibility to officers, a healthy alternative, improved officer morale and high public approval. He feels that overall the bikes are more effective because officers can more easily approach suspects in a surprise attack.

"The other day we had an officer sneak up on two suspects and he got to be 15 feet away yet they never noticed him. He was able to observe their behavior and then issue them a warning," said Lambert.

Des Moines' Police Department has been using bikes on some of its patrols for three years. Senior Police Officer Don Northup agrees with Lambert, "Street criminals don't pay attention to us, and this gives us the opportunity to surprise them more easily."

A team of two police officers ride mountain bikes through two of Des Moines' higher crime rate areas, saving fuel by not employing the added patrol cars. On their rides the officers have the accessibility to go through yards as if on foot, but have better mobility. When riding a bike the officers have more freedom to stop and talk to the public. Like the Capitol Police, Des Moines officers enjoy using the bikes as well, and have a good time on the job. Northup says there are hopes of expanding this successful program.

A government grant from the State Department of Transportation enabled Iowa City to implement its bike patrol program three years ago. Unlike regular police, these bike patrollers do not have the authority to make arrests but can issue warnings to ordinance violators. Ten college-age civilians are hired to work in two-hour shifts. According to Patrol Captain Don Strand, the program has been a useful educational program.

"We have seen a reduction in bicycle and pedestrian accidents through the program," said Strand. "With bike patrol, walking officers are more available to enforce laws," Strand added. Strand said 800-900 warnings are issued during the bike season. After an individual receives three warnings, a citation to appear in court is issued.

The DNR's own conservation officers are making use of bikes in their patrols as well. Jennifer Lancaster-Woodley, a Polk County

DNR photo

▲ **Lori Fosse of the State Capitol Complex Police shows off her patrol bike. It's pedal power in action as departments across the state use bikes on patrol.**

conservation officer who regularly rides the fishing patrol at Saylorville Lake, says the officers have better access to the water's edge and can get into more secluded backwater areas. "The bikes are one more law enforcement tool for us to use," said Lancaster-Woodley. "They add a definite element of surprise."

Iowa universities also use bicycles for more efficient patrolling and increased energy savings. At Iowa State University's Department of Public Safety, Sergeant Deb Larkin said the two or three bikes that patrol at all times increase morale and break down barriers. There are 14 officers trained for bike patrol including ISU students and reserves. This is the third summer for the program.

The University of Northern Iowa's program, being only a year old, is in its infancy. Dave Zarifis, assistant director of the project, said he has been receiving guidance from officials in Seattle, where similar programs began. Zafiris hopes the two-student-one officer-patrol unit will save fuel and improve community relations as it has done for other communities in Iowa.

Criminals, watch your back . . . the bike patrol is sneaking up on you!

Reprinted from the July/August, *Iowa Energy Bulletin*.

1994 Iowa Recycling Directory Available

The June 1994 edition of the *Iowa Recycling Directory* is available from the DNR's Waste Management Assistance Division. The purpose of the directory is to provide recyclers with the most current and comprehensive overview of recycling opportunities for Iowa residents, businesses and industries.

The June 1994 recycling directory expands recycling listings to 24 different commodities, up from 13 commodity listings in the August 1993 publication. Additionally, a "Recycling Resources" section identifies waste reduction resources and contacts to national trade associations, state and local agencies, and Iowa equipment vendors interacting with waste reduction and recycling issues.

Another special feature is the "Recycled Products Section." Primarily focused on Iowa, this section directs buyers to a number of products manufactured from recycled contents.

Order the recycling directory by calling (in Iowa) 800/367-1025 or 515/281-8941. The call will be transferred to voice mail and you should be prepared to leave your name, mailing address, city, state, zip code and telephone number. The directory can also be requested by mail by writing: Iowa Recycling Directory, Waste Management Assistance Division, Iowa Department of Natural Resources, 900 East Grand, Des Moines, IA 50319-0034. Include the same mailing information needed for phone orders.

Lowell Washburn

CRP Pays Its Way

Iowa DNR officials say they are very happy to see that a coalition on national conservation organizations has been formed to promote extension of the Conservation Reserve Program.

A recent meeting in South Dakota brought representatives from Pheasants Forever, Ducks Unlimited, the Wild Turkey Federation, the National Wildlife Federation, Delta Waterfowl Federation, the Wildlife Society, the Wildlife Management Institute, Quail Unlimited and Trout Unlimited together with senior USDA officials to discuss the future of the CRP.

"A number of studies have shown that CRP is more than paying its own way," said Richard Bishop, DNR's wildlife bureau chief, "and sporting organizations recognize it has provided tremendous benefits to conservationists that enjoy hunting as well as those who enjoy just seeing wildlife."

Thanks to savings in commodity programs through increased prices and reduced deficiency payments, nearly the entire $2 million annual cost of CRP can be saved without reducing the level of benefits to farmers.

In fact, one study estimated that national farm income for wheat, corn and sorghum would decline 20 percent, eight percent and 21 percent, respectively, without CRP.

As good as those numbers look for CRP, the natural resources benefits tip the balance even more in favor of extending the program. Soil conservation benefits over the ten-year program have been estimated at $1.3 billion, water quality improvements at $3.1 billion, small game hunting at $3.1 billion, nonconsumptive wildlife uses at $4.1 billion and waterfowl hunting at $1.4 billion.

"Overall, these additional benefits add more than $1.3 billion annually making the CRP bottom line a clear winner," Bishop said.

Lowell Washburn

Fall '94 Toxic Cleanup Days

Toxic Cleanup Days (TCD) allow Iowans to dispose of their household hazardous wastes and provide an opportunity for education on alternatives to disposal, or in some cases, proper disposal management in the home. If you are stumped about what to do with unusable chemicals in your home, call the DNR Waste Mangement Hotline at (800)367-1025.

The fall '94 toxic cleanup days (TCDs) counties and dates are listed below. Watch local newspapers for phone numbers to call for appointments.

- **September 17** Benton County, Fairgrounds, Vinton
- **September 24** Muscatine County, Engineers Maintenance Facility, Muscatine
- **September 24** Winneshiek County, Fairgrounds, Decorah
- **October 1** Woodbury County, Utilities Field Office, Sioux City

Hunting Will Continue on National Wildlife Refuges

In a news release issued by the U.S. Fish and Wildlife Service last month, Director Mollie Beattie said no hunting programs on national wildlife refuges will be halted this fall. "I wish to clarify this situation for the many sportsmen and women who have become concerned by inaccurate reports that the Fish and Wildlife Service is planning to end hunting on national wildlife refuges," Beattie said.

The concern is an outgrowth of a lawsuit settlement over incompatible activities on refuges throughout the nation. Hunting and fishing were not mentioned in the lawsuit by the National Audubon Society, Sierra Club, Wilderness Society and other groups. The lawsuit sought to stop such activities as livestock grazing, jet skiing and low-level military training flights on nine specified refuges, none in Iowa, and to ban similar "non-wildlife-related" activities on all the 499 national wildlife refuges.

An out-of-court settlement was reached, and the agreement calls for a study for each refuge on whether funds are available for recreational activities. The agreement makes an exception for instances where "a written determination has already been made for an activity."

According to Beattie, any changes proposed in refuge public uses as a result of a funding review by the Service will be submitted to Congress for review. "In addition, we will involve the states and the affected public before proceeding on any decisions that affect public use of refuges," said Beattie.

The recent statement issued by the U.S. Fish and Wildlife Service is the result of a directive by the Senate Appropriations Committee instructing the Service to maintain all current hunting and fishing activities for the national wildlife refuge system for the current year.

How Many Hunters?

Are you a reincarnated frontierperson, hunting everything from squirrels in September to turkeys in May? Or, do you take your hunting less seriously and spend just a few days going after pheasants or maybe rabbits? Did you ever wonder how many hunters are competing with you for space on the duck marsh or in the deer woods? How many hunters are there in Iowa, anyway?

The answer is, the DNR doesn't know, at least not *exactly*. You would think it would be easy to tell -- just add up all the hunting license sales and there would be the answer. But, it's not that simple. For example, about 225,000 individuals buy a basic hunting license most years (hunting; combination fishing and hunting; fur, fish and game; furharvester or Ding Darling license) and 250,000 or so buy habitat stamps. *(See the tables on p. 55 for 1993 license sales.)* But farmers and their families do not need a license or habitat stamp to hunt small game on their own land, children under 16 do not need a license if they hunt with a licensed adult and some stamps are not required if

Roger A. Hill

▲ **Upland game hunters are the single largest group of hunters followed by deer hunters.**

you are under 16 or over 65. Deer and turkey hunters must get special licenses, but may or may not need a regular hunting license to go with it. And, many stamps are bought by collectors who never do hunt. You get the picture. There are so many exceptions and exclusions that license sales tell only part of the story.

So how many hunters are there? The best answer is provided by the U.S. Fish and Wildlife Service's *National Survey of Fishing, Hunting and Wildlife Associated Recreation*, last completed in 1991, and based on phone calls to random households in the state. Individuals were asked only if they hunted, not what licenses they bought, and so were sampled only once. Children 6 to 16 years old were included.

According to the national survey, 245,300 adults and 34,800 children (about 11 percent of all Iowans) hunted in 1991. If we include 47,600 nonresidents that hunted in Iowa, nearly 328,000 individuals spent four million days hunting during the year. That's a lot of folks, probably more than participate in any other single type of organized sporting event.

Figuring out just who hunted what is less straightforward. The best estimate comes from the *DNR's Small Game Hunter Survey*, mailed to a sample of hunters after the seasons are over. The department asks hunters what animals they hunted, how many they bagged and how many trips they took. Similar surveys are made of deer and turkey hunters.

The third table summarizes those results for 1993-94. The number of hunters listed does not equal license sales, because some license purchasers end up not hunting and landowners hunting on their own land are still not included. The table is best read horizontally, for example of the 124,228 hunters that hunted deer, about 27,000 hunted only deer, 87,000 hunted deer and upland game, 17,000 hunted deer and waterfowl.

The table shows that upland game hunters are the single largest group, followed closely by deer hunters. Iowa has long been the pheasant hunting capital of the world, but the recent spurt in the popularity of deer hunting is challenging pheasants for top spot in hunters' hearts. Waterfowl hunters were least numerous and those totals have been declining for a number of years.

Deer and pheasant hunters were the most likely to be "casual hunters"-- hunting in only one season. If about 27,000 landowner deer hunters are included that were not in this survey, and probably hunt little else, nearly one-third of deer hunters hunt just deer and one-fourth of pheasant hunters hunt pheasants. Waterfowl hunters were the most likely to hunt everything. Duck and goose hunting is more rigorous and expensive and appeals only to the most dedicated hunters, who also hunt almost everything else.

1993 Deer Licenses

Regular Hunting	137,489
Youth	1,674
Combination Fish and Hunt	52,416
Bow	30,511
Fur, Fish and Game	8,061

1993 License Sales

Muzzleloader	16,169
Furharvester	7,440
Regular Gun	96,577
Ding Darling	244
Free	21,887
Nonresident	29,231

Number of Residents

Who Hunt	ONLY	Deer	Upland Game	Waterfowl	Forest Game	Total
Deer	27,804	--	87,015	17,493	43,159	124,228
Upland Game	37,610	87,015	--	24,982	53,470	147,057
Waterfowl	2,742	17,493	21,982	--	8,470	28,217
Forest Game	965	43,159	53,470	6,470	--	61,188

Upcoming NRC, EPC and Preserves Board Meetings

The dates and locations have been set for the following meetings of the Natural Resource Commission, Environmental Protection Commission and the Preserves Advisory Board of the Iowa Department of Natural Resources.

Agendas for these meetings are set approximately 10 days prior to the scheduled date of the meeting.

For additional information, contact the Iowa Department of Natural Resources, Wallace State Office Building, Des Moines, Iowa 50319-0034.

Natural Resource Commission:
--September 1, Spencer
--October 13, Maquoketa
--November 10, Des Moines
--December 8, Des Moines

Environmental Protection Commission:
--September 19, Des Moines
--October 17, Des Moines
--November 21, Des Moines
--December 19, Des Moines

State Preserves Advisory Board:
--September 20, Fort Dodge

Fall Colors Are the Forests Shining Glory

Fall colors are one of nature's most brilliant displays. Every year thousands of Iowans anticipate the fall colors and even those who remain unaware of much of nature's glory usually notice this colorful array. While they appreciate the spectacle, most people do not understand why and how the leaves of Iowa's trees change color.

The leaves of deciduous trees change color because of chemical alterations that take place within the leaves and the change involves the amount of pigments present. The signal for this chemical process to take place is the steady decline in daylight, not a visit from "Jack Frost." Environmental factors such as weather and the amount of nutrients present in the soil influence the timing, duration and intensity of the fall colors. "The best autumn for colors occurs when conditions are clear, dry and cool. On the other hand, frost can ruin this brilliant color display by killing the leaf cells responsible for color change," says John Walkowiak of the DNR's Forestry Division. "Strong winds and heavy rains may cause the trees to prematurely drop their leaves."

The pigments that color leaves fall into four groups: the chlorophylls (greens), tannins (browns), carotenes (yellows and oranges) and anthocyanins (reds and purples).

The production of these pigments is controlled by the tree's genetics, which accounts for differences in color among tree species as well as between individuals of the same tree species.

As the leaves die and fall to earth, trees begin their long winter slumber. The fallen leaves, which throughout the warmer growing season converted carbon dioxide into oxygen and reduced global warming, now take up another task -- enriching the soil and providing nutrients for future generations of trees. "By the time this year's leaves fall, next spring's new leaves will be tightly wrapped in buds ready for a new growing season," Walkowiak noted. "The cycle continues again even though the visible signs of change are not as obvious as the brilliant, often dazzling display of color change."

If conditions are right, good fall color can be found anywhere in the state. For weekly updates on the best fall color locations, the DNR's Forestry Division has a recorded phone message available from mid-September to mid-to-late-October. Call (515)233-4110 to find out conditions across the state, then take a few minutes outside to witness one of nature's most spectacular shows.

Roger A. Hill

▲ **Pigment production, controlled by genetics, accounts for differences in color among tree species as well as between individuals of the same tree species.**

CLASSROOM CORNER

by Don Sievers

Mighty Oaks From Little Acorns Grow

The following activity is adapted from *Trees for Kids* published by the DNR. *Trees for Kids* and *Trees for Teens* are combination tree education and planting programs that target 5th through 12th grade students. The program's goals are to educate students about the value of trees and to encourage students to plant landscape-sized trees at their schools or other public places.

The programs are uniquely sponsored by the Iowa DNR, the Iowa Nursery and Landscape Association (INLA), the Iowa Bankers Association (IBA), the Iowa Telephone Pioneers, Peoples Natural Gas, Midwest Gas and the Iowa Wood Industries Association (IWIA).

During the 1993-1994 school year, *Trees for Kids* and *Trees for Teens* involved 3,672 educators and approximately 323,850 students. More than 106,000 trees or shrubs were planted.

Background:

By the year 2,000 we hope to be planting as many trees as we harvest. You can help. This activity explains how to grow young bur oak trees from acorns.

Ripe acorns can be collected as soon as they fall from the tree, because acorns from the white oak group germinate almost immediately after falling. Remove the loose caps, twigs and other debris. Place the acorns in a container and fill the container with water. Floating the acorns in water helps identify good seeds. Those that float should be discarded. Those that sink are good seeds. Remove the floating acorns and allow the rest to soak for 12 hours. Any "late floaters" can be removed at this time.

Layer the good seeds with sand in a box. Leave the box outside over winter. It is important that the box be exposed to normal winter weather conditions and is protected from squirrels.

▲ **Ripe acorns can be collected as soon as they fall from the tree, because acorns from the white oak group germinate almost immediately after falling.**

Age:

Grades 3-8

Objectives:

Students will be able to:

1. identify the parts of a young tree;

2. observe and record the growth changes of an oak seedling; and

3. plant and care for a young oak seedling.

Materials:

Potting soil, two to four acorns and two 1/2 gallon milk cartons per student, metric ruler

Resource Materials:

Schopmeyer, C.S. 1974. *Seeds of Woody Plants in the United States: Agriculture Handbook No. 450.* U.S. Department of Agriculture, Washington, D.C. pp. 692-703.

Iowa DNR 1994. *Trees for Kids.* 23 pp.

Extensions:

1. Use the remaining seeds for students to investigate the parts of the seed. Students can draw their acorn and label the seed coat, endosperm cotyledons, epicotyl, hypocotyl and radicle.

2. Seeds can be planted next to the side of a clear container to allow students to see and record root growth.

3. Young trees can be sold at fund-raisers to obtain money for a landscape-size tree for the school.

Jerry D. Leonard

▲

Bur oak acorns

Don Sievers is a training officer at the department's Springbrook Conservation Education Center in Guthrie County.

Procedure:

1. Ask the students to bring two milk cartons from home. Completely open the top of the cartons, rinse them thoroughly and turn them upside down to drain.

2. After the ground has thawed in the spring, sort through your box of sand and collect the germinated seeds. Be careful not to damage the young shoots.

3. Fill each milk carton 3/4 full with potting soil. Plant one acorn in each carton. The acorns should be covered with 1/4- to 1-inch of soil. Be careful not to damage the growing sprouts.

4. Set the cartons in a drip pan. Place the drip pan on a window sill in the classroom so the cartons will be exposed to sunlight.

5. Have the students water their seeds daily to keep the soil moist. A spray bottle works well for watering. It is easy for students to use and allows greater control of the amount of water used. If they water too much one day, have them skip watering the next day. Seedlings should develop in about 12 days.

6. Measure the height of the plants daily and make a growth chart to record the growth of the seedlings. Have students identify things they could do to help make their trees grow taller. Examples include adding fertilizer and or placing the plants under grow lights.

7. Have the students draw a picture of their tree and identify and label the stem (trunk), buds, leaf blade and leaf petiole.

8. The students can take their young oak trees home and plant them in an area protected from rabbits and lawn mowers. Students may want to place a screen enclosure around their tree for protection. A flower or vegetable garden would be a good place to plant the seedlings. The trees can be transplanted to a more permanent site when they get bigger. Grow tubes can be used to improve growing conditions for the young trees.

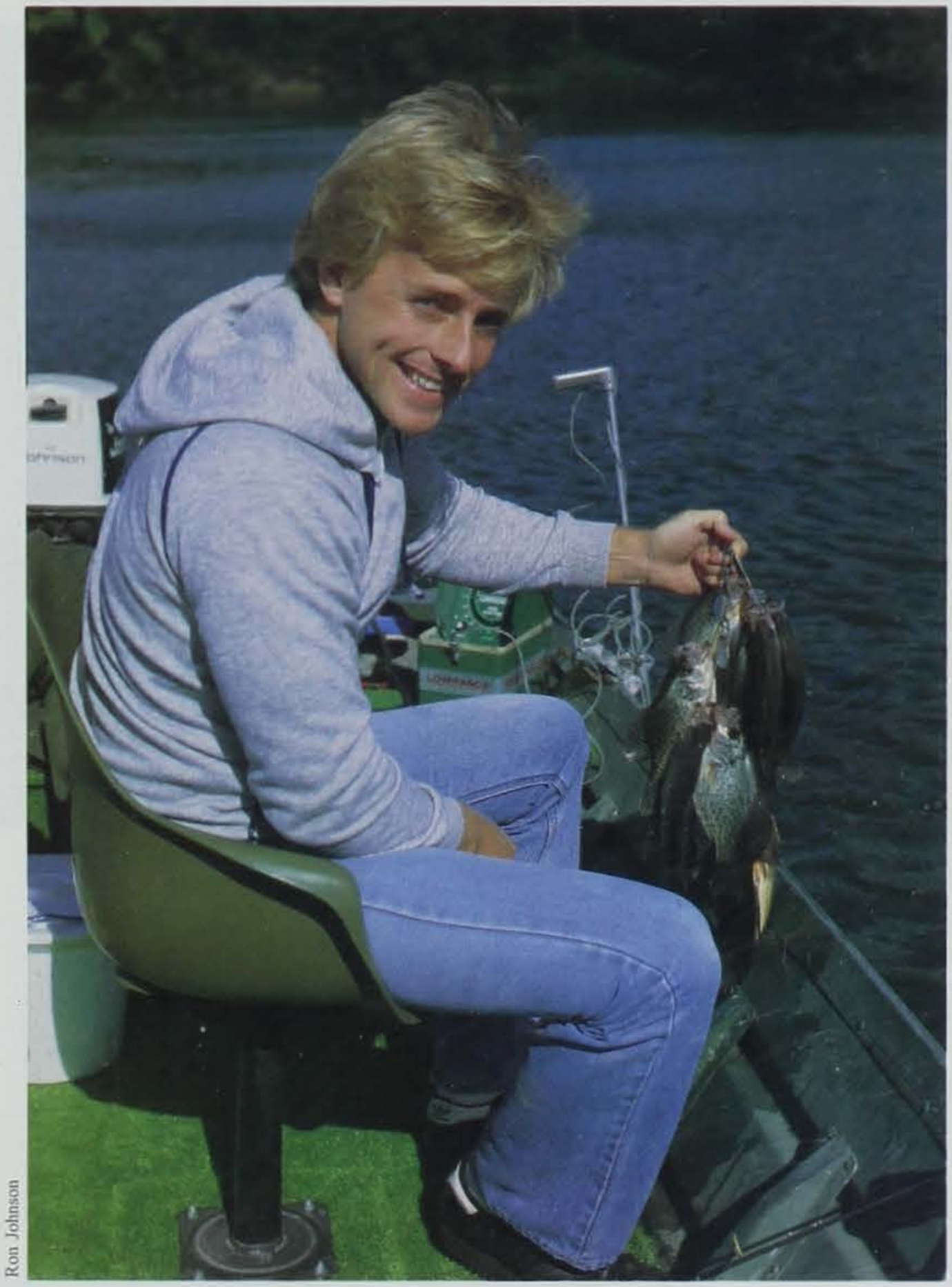
Hot Fishing for Cold-Water Crappies

by Gary Nelson

Move over springtime! The cold-water period beginning in fall can provide some of the year's fastest fishing for the popular crappie. You'll often find crappies bunched up, the weather's more stable than in spring, and you'll probably have the local crappie holes to yourself. Here are some tips and tactics . . .

THINK SLOWWWW. One of the first rules the successful crappie angler learns is that Ol' Specklesides prefers lures or baits presented in a slow manner, and this is doubly true after the water cools. In summer, crappies are commonly caught with a moderately slow lure speed, but come cold water, a real slow-poke approach is the only way. This is because colder water is more viscous. Scientists tell us that a water's viscosity reading changes from .89 at 77°F to 1.79 at close to freezing -- a doubling of the water's thickness. Aquatic organisms of all types slacken their pace in colder water and a tiny lure moving at a fast clip, or even at a moderate speed, simply looks unnatural to crappies. And, it takes more effort for the cold-water crappies themselves to move, too.

Another reason to apply the brakes to your lure is that there's a good chance the crappies might not be extra hungry. Crappies eat less in cold water and might have minnows in their bellies for up to four days or so before the meal is completely digested. They prefer an easy -- and again, slow-moving -- bait.



Ron Johnson

. . . fall can provide some of the year's fastest fishing for the popular crappie. You'll often find crappies bunched up, the weather's more stable than in spring, and you'll probably have the local crappie holes to yourself.

small lake's deep middle. A sonar is more useful now than during any other season in pinpointing the crappie schools.

For cold-water trolling or drifting, most any boat will do and, for your trolling power, you can employ a trolling motor, paddle or simply the wind. Unless you're just sculling with a paddle, you need to be careful the boat doesn't move too fast. The trolling motor's slowest setting is called for, and even now, you'll only want to activate the motor now and then to just trudge along. If there's a slight breeze you can use it to move your craft over the crappies, too. If it gets too breezy, you'll need to slow things down with your paddle or troll into the wind with your trolling motor.

When the crappies are shallow you can do well by trolling a light jig on a long line, but during cold water the fish are commonly deep, so a heavy jig trolled directly below the boat may be necessary. A boat is less likely to scare deep crappies, and the vertical line (four-pound test, or even two-pound is fitting) gives you much easier, accurate depth control.

Try trolling jigs of 1/16-ounce for depths to about 10 feet, 1/8-ounce for depths 15 to 20 feet, and so on. The jigs should be streamlined so they stay deep as you move through the heavy water; a straight-tailed grub jig or tube jig will often work fine. To help detect the often light cold-water bites, consider using a graphite rod.

Ken Formanek

Fortunately, though, chilly-water crappies can congregate in good-sized groups. Once you locate them, you can commonly catch a bunch of these opportunistic feeders if you use the right approach, and that approach will likely be one of the following:

COLD-WATER TROLLING/ DRIFTING. A fairly easy way to catch open-water crappies is to troll or drift a lure at a snail's pace over likely crappie water -- near steep points, along drop-offs, over humps or rock piles, or near a

CASTING. If you find crappies in water a little too snaggy to troll, consider casting. In this case, the jig must not be too heavy. The lure shouldn't sink so fast that you must retrieve too quickly to hold the right depth. Try 1/64- or 1/32-ouncers or, for the deeper crappies, possibly 1/16. And, the lure should be just the opposite of streamlined. Tie on a jig with plastic wings, a lightweight spinner, curly tail, or with a minnow tipped on it -- anything that will add bulk and slow the lure's movement. A long rod threaded with four- to six-pound line will round out the gear.

You'll want to cast the jig slightly past the crappies and let the lure fall. You can use the countdown method so you know how long to let the lure descend the next cast, should you connect with a fish. Inch the lure through the fish zone; your reel handle should be just barely making the rounds.

SLOW VERTICAL JIGGING. Another cold-water method is to tie up or anchor directly over the crappies and jig vertically. The fishing line can be light and the lure moderately heavy for better bite detection and so you can get down quickly for added fishing time. One technique is to plop the lure in the water and let it sink quickly, except keep you rod tip high so you can lower the lure gently the last few feet into the fish zone. A fast drop commonly spooks crappies. You might get a strike by letting the lure stand still; by giving it a twitch now and then; by creeping the lure along horizontally; or by raising and lowering the jig a few feet, little by little. Compare these movements to find which produces best.

STILL-FISH A MINNOW. An easy way to fish slowly in cold water is to still-fish a minnow.

For cold-water crappie fishing, your terminal tackle should downright encumber the baitfish. Clamp on enough splitshot above the minnow so it can't move the line far, and the hook should be heavy -- at least a number six, and preferably bendable so you can free it from snags. Hooked through the eyes or back, the eye-catching, active yet burdened minnow will appear as an injured, easy meal.

Since a crappie can mouth the bait gently, a featherweight bobber is needed so you can easily see the bite. A clamp-on bobber, just buoyant enough to hold up the minnow, is a sensitive set-up for fishing eight feet down or less. For deeper crappies, a lightweight slip bobber is in order.

No, springtime isn't the only time to nab Ol' Specklesides. With a slow-poke approach, you can often reel in cold-water crappies just as fast -- and do so without any other anglers in sight.

Gary Nelson is a full-time outdoor writer from Oakland, Arkansas. He publishes The Crappie Fisherman, *a quarterly publication. Subscriptions are $6.96 per year. For more information, write Gary Nelson, Route 1, Box 244, Oakland, AR 72661.*

Ron Johnson

BBQ Fillets

1 pound crappie fillets
5 tablespoons butter
salt and pepper to taste
1/2 cup diced onion
2 teaspoons sugar
2 teaspoons prepared mustard
1/2 cup ketchup
2 teaspoons Worcestershire sauce
1/3 cup lemon juice

In 2 tablespoons butter saute onions and set aside. Add rest of butter and brown crappie fillets. Spread onions over crappie and season with salt and pepper. Combine 1/4 cup water and remaining ingredients. Pour over fish and simmer about 20 minutes.

-- Bob Mullen, conservation officer, Tama

The recipe at left is from the *Warden's Cookbook* which can be purchased for $12 by writing the Iowa Department of Natural Resources, Wallace State Office Building, Des Moines, IA 50319-0034. A supplement is also available for $5.

WARDEN'S DIARY

by Chuck Humeston

"The Dog Story"

"You have to write a dog story."

"What?"

"You're an outdoor writer aren't you?"

"Well, I try."

"Then you have to write a dog story. All outdoor writers write a dog story. You know, Old Blue and all that?"

"Okay."

Here is my attempt at being a *real* outdoor writer.

If you've hunted, you've probably owned a dog at one time. It's amazing how they become one of the family, and how they all have different personalities. I don't own a dog right now. If I did, it would be some breed of hunting dog. But, I live in town, and I have strong feelings about putting a dog bred to work in the outdoors in a yard pen. That's just my own philosophy. I won't do it. Someday, God willing, I'll live somewhere where I'll feel I can have a dog again. But not now. I had a dog but I'll get to that.

I won't own what I call "yip yip" dogs. You know, those little bitty dogs that look like a ball of fur that either jump up and down continuously in one spot or chase you and bark, "*YIP YIP*" and nip at your ankles. Run, and you'll attract every yip-yip dog in the neighborhood. One day, tired of ankle attacks, I planned a counterattack.

It was in the first mile of my running route. I knew the dog would attack my ankles as usual. It was waiting as I could hear "*YIP YIP*," already, and I was still a hundred yards away. I ran, the dog ran, and, on cue it bit my ankle. I pivoted, and imagined . . . *Jim Zabel was on the radio. "And it's fourth and nine for the Hawkeyes in this Rose Bowl with the number one ranking on the line, and one point behind. Two seconds showing on the clock. If this is good it will be a new NCAA record. There's the snap. The ball is placed. Humeston approaches and he kicks."*

"Whiff!" I missed completely but the wind stroke nearly scared the yipper to death.

Nevertheless I continued to imagine Zabel . . . *"It's up. It's up aannnddd it's good! Right through the uprights. I love it. I love it!"* The yip-yip dog never bothered me again.

In this job I've also encountered GBDs (Great Big Dogs), many times in adversarial situations. I stopped a car one night for spotlighting. I got the driver out of the car and stuck my head in the window to look for his gun. All I saw were teeth. All I heard was, "Woofff!" Worst breath I ever smelled animal *or* human. Lucky the teeth missed my nose.

Another time a fisherman I approached had a GBD.

"Is it friendly?" I asked.

"To everyone but cops," he answered.

As I reached for my baton I said, "I feel the same way toward some dogs." We reached an agreement.

But anyway, I had a dog and the world's greatest breed of dog -- a beagle! All others pale by comparison in terms of stature, intelligence and courage . . . well, maybe.

This dog led a weird life. One time it frostbit its ears. You know how beagle ears are. Poor thing, she looked like an elephant.

As a pup it got behind our couch. I could hear all kinds of noises.

"Pop." The pup had chewed through a lamp cord and electrocuted itself. I was a kid and went into such hysterics my parents thought *I* had chewed through the cord. My dad and brother started performing a modified version of artificial respiration on the dog. My dad, a firefighter, ran uptown to the fire station and brought back oxygen. We called the vet. You know, a good old country vet in a truck and coveralls. The kind folks named "Doc" no matter what their real first name was. Well this person gave my dog a shot a shot and the pup survived, but was never quite right after that (and no, that's not because it was *my* dog).

Now beagles hunt pretty much by scent rather than sight. I used to love to watch it running a rabbit. It would be sniffing in the bushes with the rabbit a few feet away watching it. She would catch up, the rabbit would run a few more feet away and the chase and the baying would continue. It was side splitting to watch.

Courage? We used to sneak around to our front porch and pound on the door. The beagle would growl and bark, stomp and storm in warning. We would jump through the door, and it would run at light speed, yelping, for the back door.

I still miss her. She was a good friend.

Last dog story. This may *possibly* be true. On Big Wall Lake during duck season I usually encounter a lot of duck hunters from Ames. This boat had a duck hunter with a labrador on the bow. They had a radio with an Iowa State football game on. ISU would score and the dog would jump up and down and bark then roll over and wiggle its legs. This happened every time ISU scored. Finally, the game ended and ISU won. The lab turned somersaults and jumped into the lake slapping the water with its paws.

"That's amazing," I said.

"Yep," the hunter answered.

"Does this happen all the time?" I asked.

"Yep," he answered.

"Wow, she really gets excited over football. What does she do if they beat Iowa?"

The hunter paused and looked at me. "Don't know . . . she's only ten years old."

Iowa