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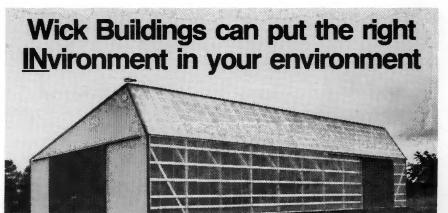
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Be aware of dangers of electricity

All it takes is a conductor -a tall piece of machinery, a clamp, dirty wooden pole, a hand or a foot, that gets between wire and ground and makes contact with both.

Power lines carry electricity, a product that powers, heats, cools and lights at home and at work – energy that can burn, injure, or kill unless you respect it and exercise common sense.

Similar to lightning, the flow of electrical energy is constantly striving to find a path to the ground. Should you cause an object or part of your body to come in contact with a power line, you are immediately providing the path the energy is seeking.

BEWARE OF THESE HIGH VOLTAGE DANGERS

• Farm grain augers, and many other types of farm equipment are of such height and length that they become an excellent path to the ground should you fail to recognize the potential danger of a power line overhead.

• Metal, metal-reinforced or wet ladders that you might use around your home or other buildings are conductors of electricity. Use extreme caution when using these types of ladders around electrical wires, service drops and equipment.

• Antennas are cumbersome and hard to control. They can easily fall or be blown against nearby power lines. Before you erect or repair a radio or television antenna when a power line is nearby, consult your electric power supplier for advice and assistance.

Lightweight irrigation pipe can be an excellent conductor, and when raised in an upright position, can contact the power line, causing you to become a fatal accident statistic.

• One of the common dangers

exists when kites or model airplanes are being flown. When accidental contacts are made, metal guide wires, wet string or strings with metal strands provide the path to the ground through your body.

Keep these safety tips in mind regarding power lines:

• Consider any overhead line dangerous. Keep objects at least 10 feet away from power lines.

• Don't attempt to raise or move electric lines ... call your power supplier.

• Report any potential power line hazard to your electric power supplier.

If an accident happens:

• If you come in contact with a power line with a truck, combine, or pulling equipment with a tractor – do not get off the equipment. If any part of your body touches the equipment and ground at the same time, you could be killed.

• Never touch a person or equipment in contact with high voltage.

• Cut off the power if you can.

• Use a rope or dry board to pull or push victim away from contact.

• Send for help and give artificial respiration to victim until help arrives.

-Oliver-Mercer Electric Co-op



Utility subsidies compared

NRECA Economist Don Smith recently updated a comparative analysis of the utility industry's three sectors. The following excerpt provides a graphic representation of some interesting differences that exist among cooperatives, municipals and investor-owned utilities:

	000	perative	MU	inicipais		100
Consumers Per Mile		4.7		77.5		35.5
Revenue Per Mile	\$3,3	370.00	\$6	8,128.00	\$4	2,007.00
Investment Per Consumer						
(Distribution)	\$1,3	307.00	\$	648.00	\$	825.00
Federal Assistance Per Consumer	\$	8.91	\$	40.45	\$	50.70
					ECTI	DIC NEWS

Come at the

ILLINOIS RURAL ELECTRIC NEWS

.....

.....



This is the time of the year – hunting season – when insulators become the casualty of many a hunter's careless or malicious aim. Insulators aren't shot by true sportsmen. Insulators are shot by people who are totally unconcerned about the lives and property of others.

There is no "open season" on insulators. However, the number shot increases about this time of the year. There isn't much sport in shooting insulators. They don't taste good, regardless of how they are cooked.

Now that hunting season is here,

it's time to take a hard look at what careless or malicious shooting of insulators could result in.

RESULT 1 – ELECTROCUTION

Energized lines are fastened to insulators. If an insulator is shattered, the line could drop within four or five feet of the ground. A person crossing the area, whether another hunter or an exploring child, is in danger of walking into a live wire. (Two young boys shot an insulator on a North Carolina Electric Cooperative's lines and the wire, under strain, snapped and hit one of the boys. One boy was severely

Cost of 'protecting' environment expected to continue rapid climb

The cost of protecting our environment keeps going up, and part of this cost is included in your electric bill.

In fact, costs related to environmental protection run as high as 30 to 40 percent of power production costs in some utility plants. That has a significant impact on your bill.

Should still more be added to our electric bills in an attempt to solve another environmental problem that hasn't yet been fully defined or analyzed? We are speaking of the so-called "acid rain" phenomenon which is becoming a hot political issue in Washington. Some environmental groups and some politicians want to place the blame for acid rain and lake acidification on utility plants, even though scientific research has proven that rainfall acidity is but one of the many factors affecting acidity in lakes. And the extent to which power plants contribute to acid rain isn't really known either.

We are convinced that adding hundreds of millions of dollars of additional scrubbers and other expensive equipment to power plants would not be cost effective. The problem would not be solved. More research is needed first to determine the causes and the most cost-effective remedies.

If you don't want your electric bill to be increased by unnecessary and imprudent actions in Washington on the acid rain issue, we suggest you write to your congressmen and senators. Tell them that Congress shouldn't jump to conclusions on a subject as complex as this and that you, as a consumer, would be paying for a pig in a poke through your electric bill if electric utilities are made the villain in hasty legislative action. shocked, but, fortunately, neither sustained permanent damage. This is a case that could have resulted in death. 02

RESULT 2 – OUTAGES

If his marksmanship is bad (and it certainly must be, or why would he be practicing on such "slow moving" targets) the insulators will only be cracked. Later the crack will fill with moisture and short out the electric line, inconveniencing many people.

A cracked insulator can't always be seen from the ground, so your Wayne-White serviceman must drive the line, and sometimes check several poles before finding the breaks in insulators. A family without heat or lights or a farmer without power for his hogs has little respect for careless hunters.

Shooting insulators is illegal and expensive. It's your money that pays the damages when an insulator is shot. Destroyed insulators are a part of the cost of doing business and this cost comes out of your pockets. We are always looking for ways to save operation costs — this is one. If you see someone doing this type of damage, take the initiative to explain the dangers. It may save your cooperative money, but it could also save someone'e life.

Utility taxes growing faster than others

The Taxpayers Federation of Illinois says municipal utility taxes are the state's fastest growing major tax source. The figures were derived from a study of revenue in 54 communities around the state.... In 1981, they yielded an average 10.4 percent of total tax revenues - third only to property and sales taxes, which yielded 21.99 and 25.17 percent, respectively.... "Escalating utility rates and, in some cases, higher tax rates have made utility taxes the fastest growing major tax in Illinois," the Federation said, "increasingly relied on by both state and local governments," Petitions are now being circulated in a number of areas of the state in a drive to put on ballots advisory referendums advocating that the state utility tax be pared to 2.5 percent from the current 5 percent and proposing to make up the lost revenue by "closing corporate tax loopholes."

Champion replaces Smith as manager of Illini

W m. David Champion Jr., an employee of Illini Electric Cooperative since 1973, has been named manager of the cooperative by the board of directors. He replaces the retiring Walter R. Smith.

Champion, a native of rural Gays (Moultrie County), began work part time for Illini while he was a senior at the University of Illinois. After receiving a B.S. degree in accountancy in 1974, he became office manager. He was named assistant manager in 1979. Champion has completed a special management training program at the University of Nebraska, is a participant in an advanced management course at the same university and has studied budgeting and financial planning at the University of Wisconsin. He has also completed the Dale Carnegie course. The new manager big wife

The new manager, his wife, Deborah, and daughters Becky (7)

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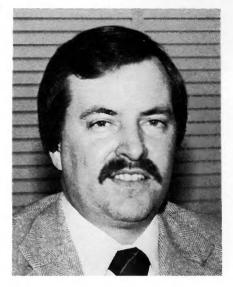


and Teri (5) live near Ogden. Among their activities are the raising, training, breeding, selling and showing of quarterhorses.

A 1965 graduate of Windsor High School (Shelby County), Champion spent four years in the Air Force. During his service, he received two Air Force Commendation Medals, one during duty in Thailand and another while stationed in Guam. He served as an electronic warfare technician during the Vietnam conflict.

Smith is a 1947 graduate of the University of Illinois with a degree in electrical engineering and he began his career with Illini that year as system engineer. From 1952 until 1958 he was operating superintendent, became assistant manager in 1958 and was appointed manager in 1960.

A native of New Canton (Pike County), Smith served in the Army



Wm. David Champion

during World War II, including service in the South Pacific.

Smith was prominent in numerous activities involving electric cooperatives, including being an original incorporator of Soyland Power Cooperative. He served as president of that 15cooperative federation for nearly 20 years.





not cut off the power. Many people have the mistaken belief that the safeguards built into their house wiring will protect them from problems with extension cords, but this is not true. Fuses and circuit breakers are designed to protect the house wiring, and that is all they do.

Assuming you must have an extension cord to get your little space heater where you need it, make sure the one you get is up to the job. Look for a cord with a UL label, and beware of such generic statements as "heavyduty extension cord," or "recommended for use with power tools." Also, the extension cord should be at least as large as the power cord attached to the tool or appliance.

Packages containing cords many times show what size cord you will need to serve tools or appliances at different distances from an outlet. If you cannot find the exact size you need, get the next larger size, and try not to buy a longer cord than you absolutely have to have. Not only are long cords awkward to work with, they lose energy, but less than an undersized cord would.

Since extension cords are somewhat unsightly and often pose a tripping hazard, it is often tempting to conceal them under a rug or carpet. This is an unsafe practice! It causes the cord to heat up, and friction will wear a cord surprisingly quickly, too.

It is safer to replace a worn cord than to attempt to repair it. If the outer jacket is worn or damaged, or if there is damage within the outer jacket, the cord presents a shock and fire hazard, and should be discarded immediately. On the other hand, if just the plug itself is damaged, and the cord sound, repairs would be in order. Properly sized and well maintained cords, used only when necessary, can be very useful around a house or farm. Misused, they are a safety threat and energy wasters.



went on his first fishing trip with me. We hired this old Indian guide in a small town in Wisconsin.

When our guide showed Mark how to bait his hook, I noticed that he rubbed something on the bait just before Mark put the line in the lake. Within minutes Mark had himself a beautiful bass. You can imagine how pleased I was and Mark, of course, wanted more.

So the whole thing was repeated—the guide put on the bait, rubbed it again, and up popped another beauty. Meanwhile, I sat there patiently waiting for my first fish.

This went on all morning. Mark caught

30 bass and I got eight. When I pulled the boat in at noon and paid off our Indian guide, I noticed that a small, unusual seed had apparently fallen from the guide's pocket into the bottom of our boat. The odor from the seed was quite

I used your spray and caught all these fish J. Hannon, Chicago



It works for me-wouldn't be without it. D. Hulbutt, Duluth

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When we returned home the next day, I gave the seed to a chemist friend of mine. He analyzed it and duplicated it into a spray for me

I could hardly wait for my next fishing trip. What I discovered on that trip was absolutely unbelievable. I have never before caught fish like that. Every time I baited my hook. I sprayed it and up popped another fish.

I tested some more. I put spray on one bait and nothing on another. The sprayed bait got the fish almost immediately. The unsprayed bait got some nibbles, but nothing more

I gave some of my friends samples of the spray to try and the results were the same—they caught fish like never before. I named my spray "CATCH FISH LIKE CRAZY" cause that's just what it does and it works with all kinds of fresh or salt water fish. It works equally well on artificial or live bait.

Here's what fishermen say about my spray: "What you say is true. I caught fish like crazy-it really works!" K.S. Evansville, Ind.

"I read your ad and found it hard to believe-but sent for it anyhow cause I'm not very lucky-after one day, I'm a believer-I caught Snook and Sea Bass-it was easy!" D.D. Naples, Fla

"I always keep a can in my tackle box. It's fantastic!" K.V. Highland Park, Ill.

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February 1984



Meter tampering now legally defined as offense

signed into law H.B. 690 amending the Illinois Criminal Code to specify that "meter tampering" shall be an offense under Illinois statutes.

Under the provisions of the Act, "a person commits the offense of unlaw-

Governor James R. Thompson has ful interference with public utility services when he knowingly, without the consent of the owner of the services, impairs or interrupts any public water, gas, or power supply, or other public service, or diverts, or causes to be diverted in whole or in part, any

Life or death matter

If your electric service is a matter of life or death to you or someone at your house because of life-support equipment, we ask that you complete the following form and return to your cooperative office. There is no cooperative that can guarantee uninterrupted service, but we do try our best.

CERTIFICATION OF ELECTRICALLY OPERATIVE LIFE-SUPPORT EQUIPMENT

This certifies to Wayne-White Counties Electric Cooperative that the undersigned, or a person who resides at the same location, is dependent on electrically operated life-support equipment.

N	ar	m	e
Τ.#	aı	11	ç

(Name of Patient if Different From Name of Cooperative Member)

Address _____

City and State

_____ Zip Code _____

Nature of the Injury or Illness which requires the equipment

The above mentioned patient is expected to require the use of electrically operated life-support equipment until __

(date)

I understand that it is my obligation to inform Wayne-White Counties Electric Cooperative when such electrically operated life-support equipment is no longer required.

(Date)

(Signature)

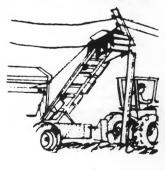
(Telephone Number)

public water, gas, or power supply, or installs or removes any device for the purpose of such diversion."

The terms "public water, gas or power supply, or other public service" means any service subject to regulation by the Illinois Commerce Commission ... and any service furnished by an electric cooperative as defined in Section 3.4 of the Electric Supplier Act.

The legislation was sponsored by Representative Thomas Homer of Canton.

Be alert for power line danger







ILLINOIS RURAL ELECTRIC NEWS

18

Sophomores, Juniors, Seniors

One boy and one girl will receive an expense paid trip to Washington, D.C., June 8-15, 1984.

A boy and girl finalist will be selected from each of the following area high schools: Carmi, Cisne, Clay City, Crossville, Edwards County, Enfield, Fairfield, Grayville, McLeanboro, Norris City and Wayne City. (A minimum of 10 finalists will be selected.)

The finalists will participate in "Illinois Rural Electric Youth Day," April 25, 1984.

Eligibility:

Any high school sophomore, junior or senior living within the Wayne-White Counties Electric Cooperative service area is eligible. They need not live in a home receiving electricity from the Cooperative.

Members of the immediate family of the board of directors, employees and winners of previous Washington, D. C. trips are not eligible.

Topic:

"Responsible Change for the Future - Rural Electric Financing"



Sponsored by Wayne-White Counties Electric Cooperative Fairfield, Illinois

Serving Rural America



Washington, D.C.

Win a Free

Trip to

Form:

Length – not less than 500 nor more than 1,000 words. Typed on $8\frac{1}{2} \times 11$ inch paper, double spaced and on one side only. Footnote information source. Number each page. Do not type your name on the essay; type it on a separate sheet. Preliminary judging will be made by number.

NRECA

Information:

May be obtained from Wayne-White Counties Electric Cooperative office, Fairfield, Illinois, the schools in the cooperative area. Entry:

Deliver the essay to the teacher in charge or mail to Wayne-White Counties Electric Cooperative, Drawer E, Fairfield, Illinois 62837, no later than March 12, 1984.

<image/>			
Additional and the state of the state o	You guide it with Just ONE HAND! Just One Hand! <tr< th=""><th></th><th>America's most popular catalog of Half-Size & Large-Size Fashions. Direct to you low prices on: • A stunning collection of dresses, coats, jeans, sportswear, lingerie and shoes. • Designer fashions and name brands too: Trissi, Ecco Too, Fire Islander, Lady Devon, Playtex, and many others! Misses Sizes 14-24 • Half Sizes 12½-34½ Women's Sizes 36-60 • Shoes, 6AA, 12EE FREE Lane Bryant Catalog Subscription Lane Bryant, Dept. A., Indianapolis, In. 46201 YES, send me my FREE Lane Bryant® mail order catalog subscription. Print Name Address & Apt. # City State</th></tr<>		America's most popular catalog of Half-Size & Large-Size Fashions. Direct to you low prices on: • A stunning collection of dresses, coats, jeans, sportswear, lingerie and shoes. • Designer fashions and name brands too: Trissi, Ecco Too, Fire Islander, Lady Devon, Playtex, and many others! Misses Sizes 14-24 • Half Sizes 12½-34½ Women's Sizes 36-60 • Shoes, 6AA, 12EE FREE Lane Bryant Catalog Subscription Lane Bryant, Dept. A., Indianapolis, In. 46201 YES, send me my FREE Lane Bryant® mail order catalog subscription. Print Name Address & Apt. # City State
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Zip

1





I made this remarkable discovery when my son went on his first fishing trip with me. We hired this old Indian guide in a small town in Wisconsin.

When our guide showed Mark how to bait his hook, I noticed that he rubbed something on the bait just before Mark put the line in the lake. Within minutes Mark had himself a beautiful bass. You can imagine how pleased I was and Mark, of course, wanted more.

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"I always keep a can in my tackle box. It's fantastic!" K.V. Highland Park, Ill.

I used your spray and caught all these fish J. Hannon, Chicago



March 1984

Zip

Ctat



Invitation from the President

Dear Member:

Your Board of Directors join me in extending to you an invitation to our 46th Annual Meeting to be held the 30th of March, at the Fairfield Community High School gym, Fairfield, Illinois, with registration and pork chop dinner starting at 5:00 P.M.

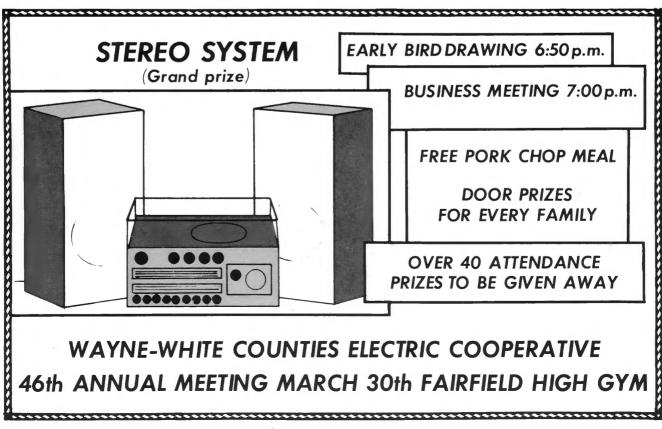
Phelps Brothers will be providing a variety of gospel music for your entertainment.

We hope that you will find the time to come to your annual meeting this year. This is one way that we can become better acquainted with each other, and by your interest your cooperative will prosper. It will be a chance to meet old friends and acquaintances and in general, have a good time.

Around March 23, you will receive the program of the meeting. Bring this program with you. Tear out the card for aid in speeding up the registration and later on to be used for drawing of the prizes.

Hope to see you March 30th at the Fairfield High School gym.

Jerry Carter Board of Directors



3 COME RAIN OR SHINE **46th** ANNUAL MEETING MARCH 30th FAIRFIELD High Gym

Moisture and dust create problem for wiring in animal buildings

Selection and installation of electrical wiring and equipment in livestock or poultry production buildings call for considerations relating to safety and cost.

Electrical Wiring Systems

Livestock and Poultry Facilities

While grain storage, feed grinding and handling, and some farm shop facilities can create severe dust problems, there is also a need to protect wiring and equipment from corrosive vapors, moisture and dust common to livestock and poultry buildings.

In agriculture buildings, there is a

need to guard wiring and electrical equipment from damage by livestock or machinery. Such damage can be reduced or avoided by location or mechanical protection. Historically, metal conduit and boxes have been used to provide mechanical protection for conductors. But, the environment in livestock or poultry buildings will usually cause metalic conduit and boxes to corrode rapidly.

Concern for methods of improving the safety and controlling the costs of

То:	A.I.E.C. Publications P.O. Box 3787 Springfield, Illinois 62708
Please m	nail me copies of the publication "Electrical Wiring Systems for Livestock and Poultry Facilities" (For each copy, enclose \$1.00 to cover the cost of the book and pay postage and handling.)
Please P	rint Name
Mailing	Address
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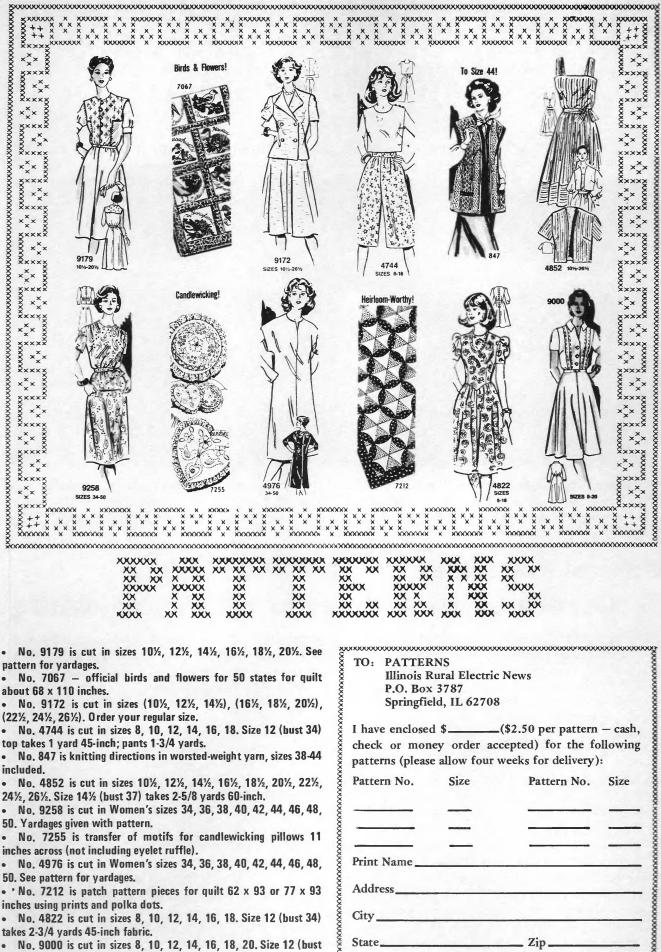
electrical service in animal buildings prompted the National Food and Energy Council to organize a task force of persons familiar with the problems and to produce a publication on the subject, "Electrical Wiring Systems for Livestock and Poultry Facilities."

Dr. David Currence of the University of Missouri's Department of Agricultural Engineering coordinated the project. During the publication development, the Environmental Control Committee of the Illinois Farm Electrification Council conducted a workshop to create further understanding of presently and potentially available equipment. In addition, eight Illinoisans participated as task force members: Paul Benson, University of Illinois; Andy Bird, Tri-County Electric Cooperative; Doug Carolus, Illinois Power Company; Don Davis, Country Mutual Insurance; Roland Espenschied, University of Illinois; William Fletcher, National Safety Council; Richard Hiatt, Association of Illinois Electric Cooperatives; and Ray Weiss, Illini Electric Cooperative.

The booklet is divided into seven sections: protecting your electrical system, wiring materials, wiring methods, electrical supply service, electrical grounding, electric motors and controls, and standby power.

The booklets are available from most electric cooperatives in Illinois, or you may order a copy by completing the coupon on this page and sending \$1 to cover cost of the publication, postage and handling.

ILLINOIS RURAL ELECTRIC NEWS



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inches using prints and polka dots. No. 4822 is cut in sizes 8, 10, 12, 14, 16, 18. Size 12 (bust 34) takes 2-3/4 yards 45-inch fabric.

No. 9000 is cut in sizes 8, 10, 12, 14, 16, 18, 20. Size 12 (bust 34) takes 2-3/4 yards 60-inch fabric.

Zip.

April 1984





Bill Endicott, left, manager of Wayne-White Counties Electric Cooperative, welcomes Vernon Gwaltney of rural Fairfield to the board. Gwaltney was elected to a three-year term on the Wayne-White board of directors during the cooperative's annual meeting March 30 at Fairfield High School. Directors reelected by cooperative members were James T. Walsh of Carmi, third from left, and Robert Glover of Mt. Erie, right.

Glover and Walsh reelected

Gwaltney new director of Wayne-White

Vernon Gwaltney of rural Fairfield dent of the Wayne-White board of is a new member of the board of directors of Wayne-White Counties Electric Cooperative, the Fairfieldbased consumer-owned electric utility. He was elected from a field of three candidates at Wayne-White's 46th annual members meeting held March 30 at Fairfield Community High School gymnasium in Fairfield. Also on the ballot were Dom Monge and Thomas R. Clark, both of Fairfield. Gwaltney will represent the area west and north of Fairfield.

Reelected without opposition by Wayne-White members were Robert De Witt County. Glover of Mt. Erie and James T. Walsh of Carmi. Gwaltney will replace Rick Moore of Fairfield, who did not seek reelection.

Jerry Carter of Mill Shoals, presi-

directors, advised the approximately 1,500 persons attending the meeting that cooperative rates would probably continue to increase in the months and years ahead. Carter said the cost of bulk power purchased through Soyland Power Cooperative recently increased by 4/10-cent per kilowatthour. The increase was the result of a decision by Soyland Power Cooperative to begin paying from current revenues some of the interest costs connected with the Clinton Power Station construction project in

The Clinton station is a 950-megawatt generating facility being built by Illinois Power Company. Soyland owns 10.5 percent of the Clinton project, Western Illinois Power Cooperative owns 9.5 percent and Illinois Power the remaining 80 percent. Wayne-White Counties Electric Cooperative is one of 15 Illinois distribution cooperatives that own Soyland and that are looking to the Decaturbased generation and transmission cooperative to provide for future power supply.

Wayne-White Manager Bill Endicott, in a report distributed to all members, said the Clinton plant will be providing about one-third of the cooperative's power requirement when it goes on line in about November 1986. "The Clinton power station has been delayed many times due to environmental concerns and Nuclear Regulatory Commission regulations," Endicott said. "These delays are costing many times over what the ILLINOIS RUBAL ELECTRIC NEWS

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original estimate of the plant was. Even though it will only provide one-third of our power requirements, it will still affect our wholesale power cost substantially."

Endicott explained to members attending the meeting that Soyland is negotiating for additional power supply over and above the Clinton project. He said that Soyland is seeking shares of ownership in exising coal-fired plants "to give us an economical mix of generating capacity to meet our needs in the foreseeable future," Endicott's report said. "The Soyland board of directors, two of whom represent Wayne-White Electric, has resolved to own 100 percent of the generating capacity needed to supply the requirements of Soyland's 15 member-systems."

Treasurer Jack Kelsey reported to members that during 1983 wholesale power supply cost 79.6 cents of every dollar members paid to the cooperative, "leaving 20.4 cents to meet all the rest of our operating costs." To provide for new members and to increase system reliability, the cooperative made net plant additions amounting to \$1,587,702.55 during 1983, Kelsey reported.

Wayne-White is still adding approximately 300 new members to its system each year. During 1983, the cooperative had more than \$17.6 million in operating revenue, and paid out \$13.9 million for wholesale power. In addition, the cooperative paid approximately \$1.1 million in taxes and at the end of the year had total assets of more than \$20 million.

At the conclusion of the member meeting, the Wayne-White Counties Electric Cooperative board of directors met to reorganize for the coming year. Carter was reelected president and Richard Rubenacker of Dahlgren was reelected vice president. Other officers are James T. Walsh of Carmi, secretary; and Jack Kelsey of Albion, treasurer.

Wayne-White Counties Electric Cooperative provides electric service to more than 13,000 members in rural areas of Wayne, White, Edwards, Hamilton, Jefferson, Gallatin, Richland, Clay, Franklin, Marion and Wabash counties over more than 3,100 miles of line.



Members received flashlights at registration



The Phelps Brothers entertained



A pork chop dinner preceded the meeting

2



I made this remarkable discovery when my son went on his first fishing trip with me. We hired this old Indian guide in a small town in Wisconsin.

When our guide showed Mark how to bait his hook, I noticed that he rubbed something on the bait just before Mark put the line in the lake. Within minutes Mark had himself a beautiful bass. You can imagine how pleased

I was and Mark, of course, wanted more. So the whole thing was repeated—the guide put on the bait, rubbed it again, and up popped another beauty. Meanwhile, I sat there patiently waiting for my first fish.

This went on all morning. Mark caught 30 bass and I got eight. When I pulled the boat in at noon and

paid off our Indian guide, I noticed that a small, unusual seed had apparently fallen

from the guide's pocket into the bottom of our boat. The odor from the seed was quite strong and certainly different from anything I had ever smelled before. This was what he had rubbed on Mark's bait!



I used your spray and caught all these fish J. Hannon, Chicago



It works for me-wouldn't be without it. D. Hulbutt, Duluth

When we returned home the next day, I gave the seed to a chemist friend of mine. He analyzed it and duplicated it into a spray for me

I could hardly wait for my next fishing trip. What I discovered on that trip was abso-lutely unbelievable. I have never before caught fish like that. Every time I baited my hook. I sprayed it and up popped another fish.

I tested some more. I put spray on one bait and nothing on another. The sprayed bait got the fish almost immediately. The unsprayed bait got some nibbles, but nothing more

I gave some of my friends samples of the spray to try and the results were the same-they caught fish like never before.

I named my spray "CATCH FISH LIKE CRAZY" cause that's just what it does and it works with all kinds of fresh or salt water fish. It works equally well on artificial or live bait.

Here's what fishermen say about my spray:

"What you say is true. I caught fish like crazy-it really works!" K.S. Evansville, Ind.

"I read your ad and found it hard to believe-but sent for it anyhow cause I'm not very lucky-after one day, I'm a believer-I caught Snook and Sea Bass-it was easy!" D.D. Naples, Fla

"I always keep a can in my tackle box. It's fantastic!" K.V. Highland Park, Ill.



180 N. Michigan Ave., Chicago, IL 60601 Enclosed is \$_____ for_____ spray cans. If I don't CATCH FISH LIKE CRAZY you will refund my money at once. money at once. □ 2 cans \$10 (SAVE \$2) plus \$1.50 post. & hdlg. -BONUS GIFT! □ 1 can \$6 plus \$.75 post. hdlg. □ 4 cans \$16 (SAVE \$8) POSTAGE FREE_BONUS GIFT! Ill. Res. add 6% sales tax. Charge my VISA MASTER CARD Card # Expiration Date_ PRINT NAME Address

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Larry Hall

Hall family has mini-zoo

or Larry Hall, a son's FFA project at school was the beginning of a hobby-business that reflects a longtime dream. "When my son, Larry, was getting interested in FFA," the elder Larry says, "he was kind of looking around for a project that was a little different from others. I'd always wanted a deer, ever since I was a kid, so I suggested that."

The Halls, who live in Cumberland County near Montrose, are members of Norris Electric Cooperative. They decided on a fallow deer, which is of Asian origin. Since fallow deer are not native to the U.S., the Halls could sidestep the problems involved in dealing with game animals.

They got their buck at Rockome Gardens in Arcola, while they later bought two does from a breeder in Evansville. They've had two sets of fawns since then, and all were bucks. "I'd like to have the buck and four does and sell the rest," Larry says.

Larry has since branched into other activities, too, with several cages of coons and foxes, in addition to the more mundane chickens and ducks you'd expect to find around a farm. Some two dozen foxes - some red and others silver - are part of the Hall menagerie.

"I'm crazy about animals," Larry says, "and I get a lot of pleasure out of the ones I have. I like to talk to people, too, and anybody's welcome to come and see the animals."

ILLINOIS RURAL ELECTRIC NEWS

Catch Fish



about 3 percent, he said, and the average cost of coal burned dropped from \$23.17 to \$20.93 per ton. Four new directors were elected to the 12-person board of directors: George R. Inman of Grand Chain, W.

Milo Thurston, front row center, of Pulaski, an SIPC director who retired after 18 years on the board, talks with A. C. Hayer, left, of Sparta and Richard Moss of Tamms prior to the start of the meeting.

B. Pulliam of Galatia, Kenneth R. Webb of Tunnel Hill and Lawrence Wilke of Karnak. Reelected were: Bill Cadle of Marion, Guy Casper of Cypress, Harold Dycus of Carbondale, Archie Hamilton of Ava, Harry W. Kuhn of Steeleville, Timothy W. Reeves of Dongola, Dale A. Smith of Cutler and Robert Tiberend of Benton. All will serve one-year terms.

The four newly elected directors replaced three who retired from the SIPC board and a fourth, Roger C. Lentz of Eldorado, who died suddenly March 5. Lentz, who was manager of Southeastern for 24 years, served on the SIPC board for 21 years and was president of the SIPC board from 1975-77 and 1981-83. The three retiring directors – Orrie Spivey of Elizabethtown, Milo Thurston of Pulaski and Bob J. Ury of Jonesboro – received plaques in appreciation for their years of service to SIPC. Spivey served on the board 13 years, Thurston, 18, and Ury, two. Thurston served as president of the board twice, 1973-75 and 1979-81.

Following the annual meeting, the board reelected officers: Hamilton, president; Casper, vice president, and Tiberend, secretary-treasurer.

SIPC is a generation and transmission cooperative made up of three Southern Illinois distribution electric cooperatives: Egyptian Electric Cooperative Association, Steeleville; Southeastern Illinois Electric Cooperative, Eldorado, and Southern Illinois Electric Cooperative, Dongola. SIPC serves approximately 37,000 meters in a 19-county area. Present generating capacity of SIPC's plant is 272 megawatts.



There are four new directors on the board of Southern Illinois Power Co-operative. From left are: Kenneth R. Webb of Tunnel Hill, W. B. Pulliam of Galatia, Lawrence Wilke of Karnak and George R. Inman of Grand Chain.





Ten high school students sponsored by Wayne-White Counties Electric Cooperative joined nearly 150 other students from throughout the state to participate in "Illinois Rural Electric Youth Day" April 25 in Springfield. They are, front row, from left, Ben Gates, Enfield; Keather Thompson, Enfield; David Hall, Norris City; David Cantrell, Norris City, and Anthony Jack, Norris City. Back row, from left, Ryan Stallings, Norris City, Sharon Goodwin, Norris City; Mindy Baird, Norris City; Karen Goodwin, Norris City; Jimmy Allen, Norris City, and Tammy Ruhl and Royce Carter, chaperones. During their day in the capital, students toured the Executive Mansion, Lincoln's Home, Capitol, Illinois State Museum and the Old State Capitol. They also attended a special recognition luncheon at which Illinois State Representative Thomas Ryder was featured speaker.

Essay finalists tour Springfield; two set for D.C. tour

Two high school students have been named winners of Wayne-White Counties Electric Cooperative's annual "Youth to Washington" essay contest.

Winners of the week-long trip to Washington, D.C., are Anthony Jack, son of Mr. and Mrs. Richard M. Jack of Omaha, and Sharon S. Goodwin, daughter of Lewis and Sue Goodwin of Broughton. Both attend Norris City-Omaha High School. Alternate winners are Karen Goodwin, Sharon's twin, and David Cantrell, son of Helen Cantrell of Broughton.

The winners were named after final judging held at the cooperative's headquarters on April 19. Selection was made from ten high school finalists.

The students wrote essays on "Responsible Change for the Future – Rural Electric Financing."

Students who entered the contest displayed talent and evidenced study and research on the subject.

Cooperative personnel and directors who were present for the reading of

the essays spoke highly of the young people. The tour is one of the finest tours of Washington, D.C., and will be a memorable and educational experience.

The winners will travel aboard an air-conditioned bus for the all-expensepaid trip to Washington.

During the week in Washington, the winners will join approximately 1,200 other students from nearly 30 states who will be participating in "Rural Electric Youth Week" activities sponsored by the National Rural Electric Cooperative Association. Other planned program activities include touring the battlefield at Gettysburg, the U.S. Capitol Building, the Library of Congress, Arlington National Cemetery, the Smithsonian Institution and other national shrines. The group will also be special guests at the White House.

The winners will also meet with several Illinois Representatives and Senators.

Sharon Goodwin's winning essay

By SHARON GOODWIN

American consumption of energy has increased 25 percent during the past 10 years. This increase in electrical use, plus the fact that one million Americans move into rural areas each year, presents a challenge for rural electric systems, a challenge which will be met through the use of more efficient generating plants. Financial aid provided by the Rural Electrification Administration (REA) plays a very important role in supplying energy to rural America.

Due to the increase in rural electric consumers, need for REA loans has increased. The challenge of providing electric service to 25 million rural Americans has also brought about a need for responsible change in REA financing. To understand totally what changes are required in the future, it is necessary to obtain a knowledge of what REA does, how they financed their loans in the past, and how they handle loans today.

"The REA is a federal agency in the U.S. Department of Agriculture that administers insured and guaranteed loan programs and provides technical assistance for rural electric systems. President Franklin D. Roosevelt established the REA by Executive Order on May 11, 1935.

To insure that the REA would be continued, Congress passed the Rural Electrification Act in May of 1936. A loan program was also created which would finance qualified entities agreeing to locate their electric service in a rural area. Preference was given to nonprofit organizations. The REA gave direct loans to rural electric cooperatives in accordance with the provisions of the Rural Electrification Act. Congress passed another act which indefinitely extended the REA as a lending agency. The Pace Act, which was passed in 1944, also fixed the interest rate at 2 percent on a payment schedule with a maximum of 35 years.

It is clear from the passing of such acts as the Rural Electrification Act As we have for several years now, Wayne-White Counties Electric Cooperative is again participating in the annual "Youth to Washington" essay contest. As usual, we had many excellent entries, with the final selection being a difficult task. Essays submitted by Anthony Jack and Sharon Goodwin, both of Norris City/Omaha High School winners. were finally chosen Sharon's essay is printed here, and we'll print Anthony's next month.

and the Pace Act that Congress wanted to electrify rural America. Beginning in 1950, all loan contracts contained an agreement of area coverage. This meant that the borrower had to provide electrical service to all consumers in its area, regardless of how sparse the population.

The REA replaced their direct loan program on May 11, 1973 with the "Rural Electrification and Telephone Revolving Fund, which provided for insured loans and no appropriated funds." The REA Revolving Fund assets are all prior outstanding REA loans. Money received as loan repayment is used to fund new loans. Guaranteed loans were also provided in the bill. Under the new program, REA is no longer funded through annual Congressinal appropriations, thus the federal budget is not affected.

Insured loans from the REA Revolving Fund make up only 14 percent of total REA financing. The other 84 percent is composed of guaranteed loans, which also presents no cost to the government. Guaranteed loans are funded by the Federal Financing Bank (FFB) or private brokers. The FFB borrows, and then reloans for an interest rate equal to the one paid by them, plus one-eighth of 1 percent service fee.

Rural electric program leaders agree that the time has come for changes in the Rural Electrification Act and in REA lending policy and practice. A special Committee on Financing for the Future has proposed a few changes, which it feels are necessary for the betterment of the REA. These changes include: restoring balance to the revolving fund, meeting the needs of special case borrowers, stabilizing the federal investment in the fund, and facilitating the growth of supplemental financing.

To restore balance to the revolving fund, the committee proposes that the interest rate on REA insured loans be periodically adjusted. Lending limits will still be set by Congress, with an annual insured loan program of at least \$1-billion.

The committee is also in favor of meeting the needs of special case borrowers. To do this, the committee suggests a special interest rate program. It is further suggested that the difference between REA's standard rate and this special rate be offset by some means which would not deplete the Revolving Fund.

Another problem of the Revolving Fund is the need to stabilize the federal investment. The committee thinks this can be done by allowing that all funds used for lending prior to 1973 be made permanent capital investment in the Revolving Fund. As the law stands now, REA is required to repay these funds to the Treasury beginning in 1993.

The final major change the committee believes to be needed is facilitating the growth of supplemental financing. This could be done "through provisions to adjust ratios as needed, and encourage the sharing of REA's security interest in its borrowers."

Electricity has played an important role in the lives of all Americans, and the REA has played a major role in the electrification of rural America. In past years, REA met the needs of the time, and as the needs changed, so did the REA loan program. The time has come for another change, and it is the responsibility of the REA to once again meet that need.

Craftsmanship

(Continued from page 5)

this one to three-fourths scale. "Many of the pickup trucks you see going around pulling gooseneck trailers shouldn't be," he says, "and I built the third rig just for that purpose. Like the two little trucks, it's all handmade from metal, from the ground up. We didn't use cut-down car frames, chopped car bodies or anything like that."

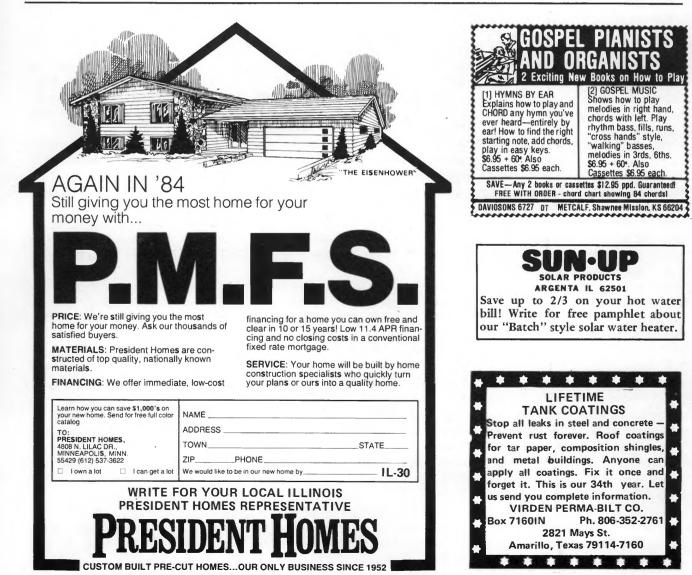
The larger rig is powered by a 427 Chevrolet engine with a Fuller 13speed transmission, and the cab is fully upholstered. In keeping with the quality you would expect from a third generation shop, the big truck has some finer touches that are missing from the shrink-fit units. It boasts dual highback air-ride bucket seats, has a walk-in sleeper, and a beautifully grained hardwood dashboard. The truck also sports air conditioning, electric windows, and power steering and brakes. Like its shrunken siblings, it has a gleaming stainless steel grille, radiator shell and front bumper, as well as chrome dual exhausts. All are equipped with sliding fifth wheel and movable rear duals.

Tom often uses the truck and its specially built gooseneck trailer to take the TomBilts to parades and exhibits, where the trio can be counted on to draw admiring crowds in no time flat.

The trucks are about to be joined by yet another, this time in two-thirds scale. "We're building it for a man in California and it'll be a replica of the Model 359 Peterbilt. When we get done with it, you will not" Tom says with emphaiss, "be able to find anything different from the full-scale one except size. We're putting a 3208 turbocharged Caterpillar diesel engine in it, and it's going to be a fantastic truck. I expect it to do really well in shows."

While the trucks started out as kids' playthings, they serve somewhat of a different purpose now. Tom's business, O.B. Dell and Son, deals primarily in ag repairs and grain handling and storage equipment, and is sensitive to the farm economy.

"We hope to build and sell these trucks on a regular basis," Tom says, "to keep us going when the farm economy is flat. The little trucks are great for parades and other promotions, and the bigger ones are good for hauling, as well as being 'way up there in show competition. They're all super attention getters. We build quality into them that I'll compare with anybody's, too."



ILLINOIS RURAL ELECTRIC NEWS

American agriculture. And here, too, people of great vision imagined how life could be made better through agricultural research, education and public service.

"In 1850," Campbell reminded his audience, "another farsighted pioneer, Jonathan Baldwin Turner, told an audience, 'Before you send your scholars soaring off to Athens and Rome, be sure they first know how to plant beans and harness horses.' Mr. Turner's counsel was to put priorities in proper perspective: to feed the people first."

Turner, who had lobbied for years for a land-grant college in Illinois, finally struck a responsive chord in another forward-looking Illinois man, Abraham Lincoln, who signed such legislation in 1862.

Campbell noted that George Morrow, the first dean of the college, had established 10 small plots of land for agricultural experimentation. These plots, set out in 1876, were the first such test plots in the United States. They enabled early day students to study the effects of soil fertilization and crop rotation, and experiments in plant breeding could be watched carefully.

"Nearly 65 years ago," Campbell noted, Professor E. W. Lehmann began his pioneering efforts here to bring electricity to rural America. "Today," Campbell said, "we have come together to dedicate an Agricultural Engineering Sciences Building constructed on some of the original Morrow test plots. It is most right that our newest facility for agricultural research and education has its foundations in our oldest beginning."

Campbell suggested that the new structure is as much a bridge as a building – a bridge to twenty-first century agriculture, spanning the gap between present day farming and hightechnology agriculture.

"Now we stand at another frontier," he said, "and our aim remains the same as it has been – an abundant, safe, economical food supply. But now we use research techniques such as lasers and microprocessor controls, computer modeling, and genetic engineering. And because we have become more aware lately of the delicate balances that exist in Nature, and of the limits of our resources, we are developing programs to reclaim waste products and reduce our dependence on fossil fuels."

A first class building, the dean added, does more than just house laboratories and span eras, as important as those functions are. "Just as surely as bees are attracted to succulent flowers, scholarly students and faculty are attracted to well-equipped laboratories and classrooms. The Agricultural Engineering Sciences Building will enhance our efforts to attract and retain talented, future-oriented, topof-the-line human resources," he said.

The dollar per citizen investment Illinoisans have put into the structure will be repaid handsomely, if history is any indication, Campbell said.

"Post-harvest technology holds great promise for Illinois agriculture and the state's economy in general – in the form of value-added products," he explained, adding, "the countries of the European Common Market are wiser than us in this respect. While we export raw agricultural products, they process, then export them, keeping jobs at home. We need to be doing more of that here.

"While the economic benefits of exporting raw agricultural commodities have been enormous, a still greater potential exists for the export of processed products. A recent study by the U.S. Department of Agriculture estimated that \$1 million worth of corn generates \$44 million in total sales if the product is exported as dressed poultry. The conversion of that corn to poultry was also estimated to generate more than 1,150 jobs and provide \$9.3 million in additional income. Clearly, the development of export markets for valuehas substantial products added economic significance for Illinois."



Left: Many alumni and well-wishers attended the dedication and open house. Here, Wm. David Champion, manager of Illini Electric Cooperative, left, and Roger R. Yoerger, center, head of the Department of Agricultural Engineering, visit with an unidentified participant in the ceremony. Right: Several dignitaries were on hand to cut the ribbon at the new building's entryway. From left are: Stanley O. Ikenberry, U of I president; Governor James R. Thompson; John E. Cribbet, chancellor, U of I at Urbana-Champaign; John R. Campbell, dean, U of I College of Agriculture; Larry Werries, Illinois Director of Agriculture, and Orville Bentley, assistant secretary for science and education, USDA. William S. Forsyth, Jr., president of the U of I board of trustees, is directly behind Ikenberry.



Acid rain scare may boost your bills

Ready to pay more for the electricity you use? If the U.S. Congress passes acid rain legislation now before both houses, you can expect a major increase in your monthly bill, and it may do no good.

What acid rain is, where it comes from and what effect it has on the environment are just a few of the questions being asked. Utilities are raising the same questions. They are just as concerned and involved as the news media and scientists.

In fact, the utilities believe that much more research is needed to gather the information necessary to make a rational decision on acid rain.

At present, acid rain is generally linked to power plant emissions. Critics of the Midwestern utility industry charge that fossil-fueled power plants release sulfur and nitrogen oxides, contributing heavily to the formation and deposition of acid rain.

Sulfur dioxide supposedly converts to sulfuric acid in the air and combines with water vapor to form acid rain. Utilities say there hasn't been enough evidence to prove this theory, and wonder why no mention is ever made of local automobile pollution.

Interestingly, although it is true that there are lakes in the Northeast that are too acidic to support fish life, there is also evidence to suggest that this is not a new situation. Studies show there were lakes in the Adirondack Mountains too acidic to support fish life as far back as the 1940s.

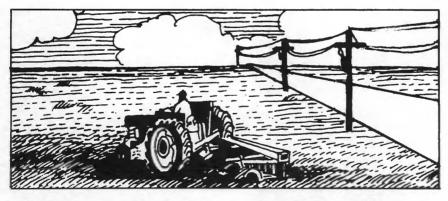
In spite of the lack of evidence supporting the theory of acid rain formation, there is a call for the control of sulfur dioxide emissions on power plants in the Midwest. All these

proposals have three things in common – they're expensive to Midwesterners, they may not alleviate the lake acidity problems in the Northeast, and they're being greatly exaggerated during an election year.

The simple truth is that we do not really know that sulfur dioxide emissions from Midwestern power plants cause acidic precipitation in the Northeast, and we do not know that cleaning up the emissions from those plants will do a bit of good.

We do know that the call has gone up to "do something" about acid rain, and a quick fix may be on the way.

We at Wayne-White Counties Electric urge you to visit with your legislator when he is home campaigning, phone him, or write him. Remind him that expensive but misguided efforts are still expensive.



Be careful near power lines

Planting season calls for special attention to the dangers of electric power lines.

If a vehicle or equipment extending from a vehicle should come in contact with an overhead line, the entire body of the unit becomes energized. However, occupants of the vehicle are perfectly safe as long as they stay on the unit which is insulated from the ground by its rubber tires.

If you are the operator, or you witness someone in this situation, make sure that no attempt is made to leave the vehicle until someone gets help from the Cooperative office or emergency squad. Make certain also to keep other persons away from contact with any part of the energized unit or with any conductive objects it is in contact with.

If it is necessary for the occupant to leave the vehicle, he must be absolutely certain to jump clear so that no part of the body is in contact with any part of the vehicle and the ground at the same time. Even on slightest contact the body can complete the circuit to ground with disastrous results.

The possibility also exists for accidents involving vehicles colliding with power poles, guy wires or wire anchors. Please be extremely cautious when working around power lines or poles. Cutting a guy wire or shearing off a pole could put the power line in contact with the equipment or operator.

Contact can also weaken poles and guy wires and leave the line susceptible to outage.

ILLINOIS RURAL ELECTRIC NEWS

Anthony Jack's winning essay

By ANTHONY JACK

Since the beginning of time, man has been going through a constant change to better his life and surroundings. Because of this, man has not only impoved what he had, but he has also taken challenges and ventured into new and exciting opportunities. The REA is one of those who took a risk, by providing a service to thousands of farmers without electricity and giving them light.

In the 1930's, only one out of every ten American farms had electricity. Because there were so few residents per mile of line, power companies said it was not feasible to provide electricity to rural areas, but farmers and ranchers, cooperatively, literally lit up the countryside. They banded together, hired the expertise to put up the poles, string the wire, hook up the farms and manage the service. With the establishment of the rural electrification program in 1935, by executive order of the President, billions of dollars have been loaned by the Rural Electrification Administration, to construct the systems that brought a new and better life for most of rural America.

Today, almost anyone in rural America has access to central station electric service, and America's 1,000 nonprofit, consumer-owned rural electric systems, most of which are organized as cooperatives, provide electricity to more than 25 million people in 46 states, but it did not start As we have for several years now, Wayne-White Counties Electric Cooperative is again participating in the annual "Youth to Washington" essay contest. As usual, we had many excellent entries, with the final selection being a difficult task. Essays submitted by Anthony Jack and Sharon Goodwin, both of Norris City/Omaha High School finally chosen winners. were Anthony's essay is printed here. We printed Sharon's last month.

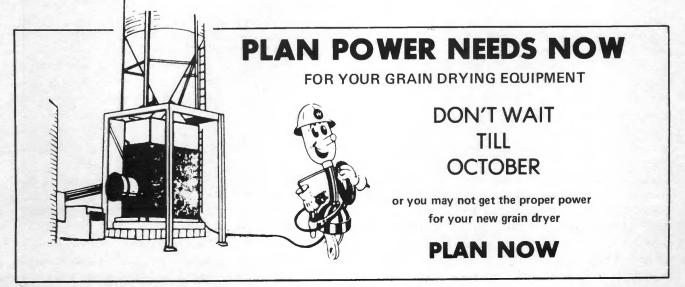
out like this. When it was first established, the rural electric program depended totally on the U.S. Treasury for the funds to do the work. It was a big risk especially with the U.S. in a devastating depression and rumors of war spreading through Europe. But the challenge was met and today the REA loan program has no impact on the federal budget.

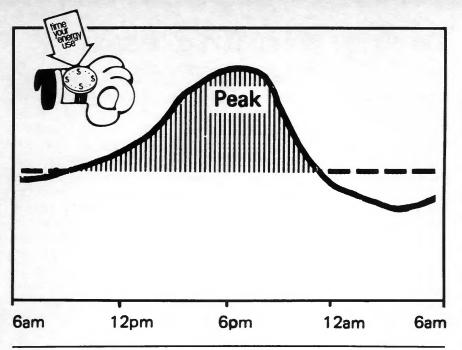
Although more than 99 percent of rural America now has basic electric service, continued REA assistance is necessary in the form of insured and guaranteed loans, not tax funds, as rural electric systems struggle to cope with agriculture's demand for increased capacity, the urban to rural movement of our population and the need to increase service reliability.

The electric cooperatives have two available sources of funds with which to receive financing, under the REA financing program. They are the insured and guaranteed loans. The insured loans are made directly by the REA from a revolving fund with a standard interest rate of 5 percent. The guaranteed loans are made by REA acting as a go-between for rural electric cooperatives and private lenders. These REA guaranteed loan funds are funded through the Federal Financing Bank and accounted for 86 percent of all REA loans in the fiscal 1982 year. The cooperatives pay the FFB's interest cost plus a service fee of .12 percent on REA-guaranteed loans, but enables the cooperatives to obtain a lower interest rate in the private money markets.

8

Electric cooperatives work closely with all electric suppliers today to meet their common problems and stand ready to use all legitimate avenues to maintain the territorial integrity of service areas they have developed. To do less would be to abandon the interest of memberowners of the electric cooperatives. Robert D. Partridge, Executive Vice President of the National Rural Electric Cooperative Association, once said, "Cooperatives provide jobs and services that benefit thousands ... they furnish an efficient, economical way of meeting the common needs of both rural and urban Americans. Cooperative people can be justly proud of their accomplishments and in their proven ability of meeting the challenges of the future with a 'we, the people' spirit that's building a better America."





It's 'peak alert' time

ost consumers are familiar with the term "peak demand" and have some general idea that it affects the cost of electric service. But just what is peak demand and how does it work to drive up the cost of providing electric service today?

Peak demand is, very simply, the greatest use of electricity in any given period. Every day has a peak demand, every month, every year. In some cases, the peak demand doesn't get very high at all; demand for electric power stays fairly constant.

But sometimes, especially during hot summer afternoons and evenings, peak demand skyrockets. That's when it becomes a concern.

The concern isn't in whether the demand can be supplied; usually a utility has enough generating capacity to meet the demands of its consumers. The real concern is in the cost of supplying peak demands. Because different kinds of generating plants, using different kinds of fuel, are used for different needs.

For instance, there are some large generating plants which produce great quantities of electricity almost all the time. These are termed "base-load" plants. They are capable of operating on a 24-hour-per-day, seven-day-perweek basis, and can satisfy the typical 14

demands for electricity. Because of the size of these plants, they are more expensive to construct. But they also use the lowest-cost fuels, such as coal and nuclear fuel, and thus are less expensive to operate on a day-to-day basis. These plants are also the most reliable, efficient generating stations on a system.

During times when base-load generation isn't quite enough to satisfy electric demand, "intermediate" plants are put into service. These are often older generating plants which once served as base-load capacity, but through age and technological advancements are now less efficient than newer generating facilities. These intermediate plants often use fuels such as coal, oil, and gas. They are often run at half capacity, rather than at full production capability, just to make up the difference between demand and base-load production.

When demand becomes very high, "peaking plants" are put into service. These units usually operate on expensive oil or diesel fuel. They rarely generate large quantities of power, but they have one great advantage over intermediate and base-load plants due to the fuels used, they can go "on line," or begin generating, almost at a moment's notice.

Getting the generating equipment operating and producing electricity quickly is a very important factor in meeting peak demand, because sometimes demand increases very rapidly, and failing to meet it could cause an entire system to go into blackout. But it can also be a very expensive element in the cost of producing electricity, especially operating oil or diesel units.

These peaking plants are used only during times of excessive demand, or when another major unit fails. But, much like an automobile that is only driven on Sundays, that unit still has to be paid for, in full. And those fuels - oil and diesel fuel - which allow quick start-up at critical times are also the most expensive fuels to use in generating electricity.

Peak demand also makes it necessary for transmission lines and substations to be able to deliver enormous amounts of electricity when necessary, although that ability isn't always needed. Allowing for that added capacity makes the planning, design and construction of these facilities more expensive.

It's all reflected in power costs. Until the past decade, the cost of meeting peak demand was not as high because the fuels used were much less expensive, and the demand itself was not as great.

But every year demand, and costs, increase. These costs will continue to grow as oil-based fuels become less available and more expensive. Fuel costs ordinarily make up as much as 50 percent of a utility's operating expense; when those fuels include natural gas and oil, that percentage can increase drastically.

You can help avoid contributing to peak demand and help your cooperative control costs by controlling electric use throughout the day. What happens between 10 a.m. and 10 p.m. on hot days this summer could greatly affect your electric rates next year. Controlling your own use of electricity by using only one major appliance at a time during those hours is one contribution you can make.

A little effort now during warm weather can make a big difference in your future power costs.

ILLINOIS RURAL ELECTRIC NEWS

ship is to promote student interest in household equipment and energy consumption in preparation for careers in general home economics, consumer economics, home economics education and Cooperative Extension.

Undergraduates at the University enrolled in the School of Human Resources and Family Studies who have at least 60 hours of credit and who have a professional interest in the area of studies stipulated by the Mamer family are eligible to receive the scholarship. Marilyn M. Dunsing, acting head, Department of Family and Consumer Activities, says that second-year students at the University are encouraged to apply, and that transfer students from junior and community college or other four-year institutions are eligible to apply.

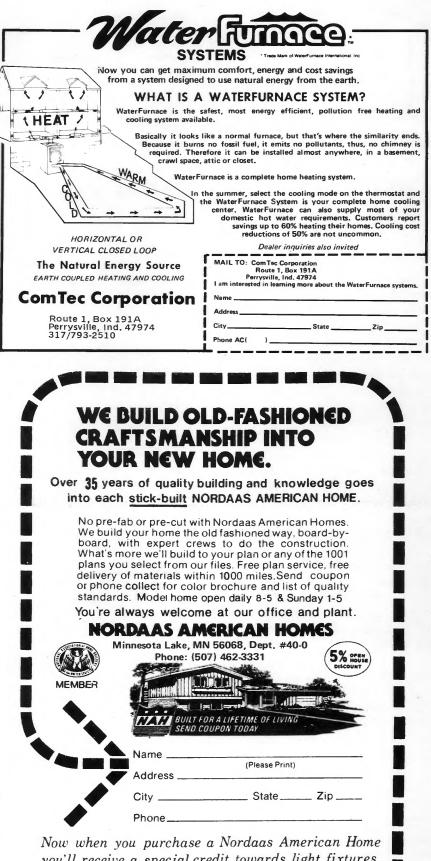
Selection is based on three principal criteria: academic aptitude, potential for contribution to the home economics profession, and enrollment in or completion of specified courses or participation in the activities of the Association of Illinois Electric Cooperatives.

Persons interested in applying for the scholarship should write to: Director, School of Human Resources and Family Studies, 274 Bevier Hall, 905 South Goodwin Avenue, University of Illinois at Urbana-Champaign, Urbana, Illinois 61801.

Louisan Mamer eventually took on the job of showing rural homemakers how to get the most out of the new electrical appliances that were going out into the countryside behind the crews who were stringing line and wiring houses. She spent 45 years at REA, and retired in April 1981.

During her career with REA, thousands of people from throughout the Midwest learned about the efficient use of electricity at "REA circuses."

The "circuses," which were more properly known by the less colorful term "REA Farm Show," consisted of a traveling appliance and farm equipment show carried in a 28-foot trailer and a truck. Louisan pulled the trailer across Iowa, Illinois and Nebraska with her dark blue 1936 Ford convertible, convoying along with the truck, which carried the farm equipment side of the "circus."



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Partridge tells Senate panel REA legislation is key to 'keeping lights on' in country

A spokesman for the nation's rural electric systems has told a Senate subcommittee that legislation being considered by the panel is necessary to "keep the lights on in rural America."

Robert D. Partridge, former executive vice president of the National Rural Electric Cooperative Association (NRECA), appearing before the Senate Agricultural subcommittee on Agricultural Credit and Rural Electrification said that rural electric systems "are not asking for any new assistance in meeting the still formidable challenge of providing reliable and affordable electric service to the people of rural America.

S-1300, the Rural Electric and Telephone Revolving Fund Self-Sufficiency Act, would allow the standard interest rate for rural electric insured loans to rise to offset interest expense incurred when the Administrator of the Rural Electrification Administration (REA) must borrow from the Treasury to meet current loan demands.

It also would allow \$7.9 billion in Treasury notes due between 1993 and 2017 to remain in the Rural Electric and Telephone Revolving Fund, a provision characterized by Partridge as "an open-ended extension of the present 'earmarking' of these assets as capital for the Revolving Fund."

The Self-Sufficiency Act also provides for the refinancing of Revolving Fund borrowings from the Treasury and of REA-guaranteed loans made through the Federal Financing Bank if interest rates drop one percent below what the lender is paying.

The House version of S-1300, HR

3050, passed by an overwhelming 283-111 vote March 1. An amendment introduced on the floor requires agreement of the Federal Financing Bank before any refinancing of Treasury borrowings can occur.

"As its title implies, the Self-Sufficiency Act will keep the lights on in rural America without any additional assistance from the taxpayers in the form of budgetary outlays," Partridge said.

The Self-Sufficiency Act, Partridge reminded the Senate panel, does not relieve any rural electric borrower from repaying principal and interest on loans from REA.

The legislation would not in any way reduce the principal or interest

amounts due on any loan made by REA to rural electric borrowers.

"Not one dime of REA lending would be in any way 'forgiven' under this bill," Partridge continued.

The former NRECA chief, in one of his last appearances before retiring, pointed out that according to analyses by the Congressional Budget Office and others, the retention of the assets in the Fund would have virtually no impact on the federal budget since it would reduce the need for borrowings from the Treasury by a corresponding amount.

The Revolving Fund was created by Congress in 1973 as the source of capital for rural electric and telephone financing.

Former REA chief speaks during senate hearings

David A. Hamil, a Republican leader who served as REA Administrator under five presidents – from 1956-1961 and again from 1969-1978 – told the Senate subcommittee on Agricultural Credit and Rural Electrification that S-1300 would "assist in moving REA from its dependence on the federal government."

In an emotionally charged statement, his voice cracking, Hamil said, "I don't know how much (S-1300) is going to cost. I don't care, because it's worth it."

Hamil, in response to a question from subcommittee chairman Paula Hawkins (R-FL) on whether REA should be on or off buget, said, "I'm always interested in what bookkeepers have to say, but I'm not always willing to let bookkeepers run the business." Hamil said the distinction between on or off budget is not important because Administration officials "know where our (loan funds) go. The Congress knows it, the (Federal Financing Bank) knows it, the people know it,"

Hamil dismissed Administration charges that the bill would be too costly. Replying to Administration claims that the Self-Sufficiency Act would cost \$21 billion, Hamil said, "I could show how the bill could create assets of \$21 billion. It's another job for bookkeepers."

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WEST UNION Larry Lindley Construction 217/826-2280 building. Also, install enough light tions. To be suitable for use in these switches and motor controls for convenient operation.

No matter how carefully you plan, there are always changes in technology or changes in the operation that make it necessary to expand and revise an electrical system. For this reason, do not begin by installing circuit distribution panels that are only large enough for present electrical loads. Allow some room for expansion.

Design electrical systems for easy maintenance. For example, locate lampholders so that bulbs can be easily changed; and locate motors and fans so that they can be easily disconnected for repair and maintenance.

Finally, install the electrical system carefully so that the appearance of the finished work is a credit to the farming operation as well as to the person who installed it.

Most rural areas have no electrical inspection of either new construction or remodeled buildings. In most cases the only inspection is by a representative of the insurance company after the work is done. Before hiring an electrician discuss his workmanship with other producers and your insurance man. Sometimes the lowest bidder is the most expensive over the long run. All too often, the individual who wires a confinement building is either unfamiliar with the type of equipment needed or does not know where to purchase the proper wiring materials. Be sure that the electrician you choose has skills that match your needs.

Electrical installations and equipment should be in accordance with the National Electrical Code and any local codes. Particular attention must be paid to Article 547 in the code concerning agricultural buildings. Although there are five environments listed in Article 547 that create unique problems for electrical installers, the environments of primary concern have a high dust level from litter, feed or feathers as well as a high moisture level and a corrosive atmosphere brought about by vapor from manure.

The equipment used in environmentally controlled livestock buildings presents a new set of problems to most electrical installers. These buildings are classified as "damp" or "wet" loca-August 1984

locations, wiring must seal out dust and moisture.

The recommended practice today is to use type UF (underground feeder) cable rather than type NM cable in wet

Table I. Supp	port Spacing for
Rigid, Nonmet	allic Conduit
	Maximum
Diameter	Support Spacing
.50-1 inch	3 feet
1.25-2 inch	5 feet
2.50-3 inch	6 feet
3.50-5 inch	7 feet

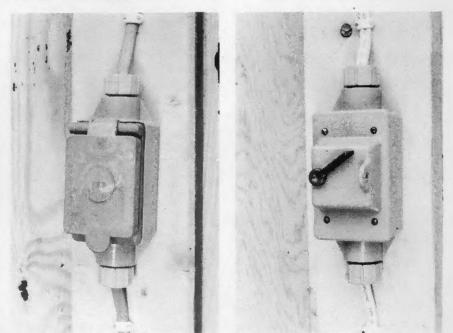
areas. UF cable is approved for use in wet locations while NM is not. Mount the cable on the surface for ease of maintenance and inspection rather than enclose it in attics or inside walls. Secure the cable within eight inches of each box and at two-foot intervals on horizontal surfaces and three-foot intervals on vertical surfaces. Use nonmetallic cable straps with stainless steel nails to secure the cable, and mount the cable so that it follows the surfaces of structural members such as studs and trusses.

Locate the cables so that they are not subject to contact by animals or exposed to mechanical damage. Also, be sure not to make sharp bends in cables. In fact, the radius of the bend should be at least five times the diameter of the cable. Install switches so that they open the ungrounded (hot) conductors. Use care when removing the outer covering from the UF cable so you do not slit the insulation on the wires. Be sure all splices are properly insulated and enclosed in boxes. Use approved, moisture-tight, non-corrosive boxes with gasketed covers and connectors that seal tightly to prevent moisture, dust, insects and rodents from entering.

In some cases, conduit must be used for mechanical protection or where multiple wires are needed, as in motor control systems. However, do not use metal conduit and boxes because they will corrode in the wet environment of a livestock confinement building. Instead, use Schedule 80 rigid, nonmetallic conduit and nonmetallic boxes.

Rigid, nonmetallic conduit and nonmetallic boxes eliminate the corrosion problem. There have been some problems, however, with sagging of nonmetallic conduit. The data in Table I indicates the maximum support spacing for use of Schedule 80 rigid nonmetallic conduit.

Several brands of corrosion-resistant, watertight boxes and cord and cable connectors that will seal out moisture and dust are available. These items may be difficult to locate in electrical stores but can be purchased through electrical wholesalers.



UF cable entering dust- and water-tight, nonmetallic boxes in corrosive environments must be secured to structure within eight inches of box.



Earth-coupled heat pumps: efficient heating, cooling

Taking advantage of the earth's temperature When the subject of water source heat pumps comes up, it is necessary to distinguish between the ground water (open loop) and closed loop systems. Both are earth coupled, meaning they are in contact with the earth and thus capture the natural heat of the earth to heat your house. The difference is the loop itself and how this loop contacts the earth.

The open loop, or ground water system, uses water from your normal well. The loop in this case is the water from underground. The term "open" loop means the water is not the same water used over and over. In the open loop system, once heat from the water is removed, the water is discharged and not intended to be reused. Discharging generally means either dumping it to a basement drain or field tile or, if there is a chance of running out of water, it should be returned to a "return well" at least 100 feet from the supply well.

Groundwater vs. closed loop

Most of the open loop systems installed to date are returning the water to the aquifer. This discharged water is not harmed in any way. Only 10 degrees of heat has been removed.

Closed loop refers to a loop in a closed circuit, meaning the fluid is reused or recirculated again and again. The closed loop heat pump works much the same way as the open loop heat pump, taking out about 10 degrees of heat from the water with each pass. The difference in operation is the source of water. Although both systems can be described as "earthcoupled," the closed loop system relies entirely on the length of the loop that is in contact with the earth to pick up

ILLINOIS RURAL ELECTRIC NEWS

the required heat. The loop or pipe and its length must be carefully sized to each particular house. A loop that is undersized will not provide the needed heat and a loop oversized will add to the cost of installation.

Even when the closed loop is sized properly, economics dictate that the loop length will not be long enough to keep the water temperature from dropping to the freezing point during the coldest weather, thus an antifreeze solution must be included.

Not all water source heat pumps work on closed loops

Most water source heat pumps are designed to operate with water from a well that is generally at a constant temperature of around 54 degrees. To protect the equipment in case of a water supply problem, these heat pumps will automatically shut down when the incoming water temperature is less than 40 degrees. There is a chance the heat exchanger could freeze up if incoming temperatures are much lower. Thus, installing an ordinary water source heat pump on a closed loop will not work.

In addition to the length of the pipe, the depth and the material the pipe is made of is important. Only two kinds of pipe are recommended. Polybutelene or polyethelene are recommended. Both are extremely tough and have an expected life of 50 years. In addition to their strength, the relative ease of heat transfer from the earth to the fluid is important. A pipe that acts as an insulator would cause the loop to need more length in order to pick up an equal amount of heat.

Horizontal vs. vertical loop

The closed loop can be installed in a horizontal or a vertical position. In a horizontal system, the pipe should be buried as far down as possible in order to be in contact with warmer soil. Generally it is best to be between four and six feet deep or more if economically possible. This is deeper than most trenchers will go, so a backhoe August 1984

may be needed. In that case a depth of nine feet could easily be reached. Generally once you get down eight feet, there is not much seasonal change in soil temperatures. As a rule of thumb, around 450 feet of pipe will be needed for each ton of cooling, thus a lot of open ground would be needed. Anyone having open farm ground next to their house might find the horizontal system the cheapest to install.

Vertical loop

Although it varies from area to area, most closed loops in this area have been vertical loops. With a vertical loop, generally a five-inch hole is bored to around 150 feet deep. A loop of pipe is dropped into this hole. The number of bore holes is determined by the length of pipe needed. That in turn is determined by the size of the house and the heat pump. A rule of thumb calls for 175 feet of bore hole per ton of cooling needed. To keep the ground temperature from one bore hole from affecting another one, the holes are generally at least 10 feet apart.

Although not a well, these holes are generally drilled with well drilling equipment. Sometimes described as deep post holes, there are at least three advantages to a vertical system: less yard has to be torn up during installation; good where a limited area is available such as a city size lot or g limited yard space; and most important is the reduced footage of pipe needed because the surface air temperature does not influence - the earth temperature in the slightest.

This is probably more than you ever wanted to know about either closed or open loop. The important thing to remember is that both systems work equally well. Without a doubt, the installation of either one will lower the cost of heating your home.

Cooling as well as heating

Although the water source heat pump has been widely used in the far southern climates for many years, the water source heat pump is a much greater energy saver during the heating cycle than the cooling cycle. Most water source heat pumps have an EER rating of between 12 and 14. This is good but not all that much better than some super-efficient air source air conditioners.

The greatest efficiency is in the heating cycle. The efficiency during the winter is nearly double the efficiency of the air source heat pump. The reason is that the earth's temperature is much warmer than the air, with the greatest difference occurring in the northern climates.



Congress will not approve acid rain controls this year

Congress has killed, for another year, attempts to control acid rain. The end of months of emotional debate, political maneuvering and intense lobbying came when the House Subcommittee on Health and the Environment voted 10-9 against the leading acid rain bill. Other proposals have been introduced, but with little time left in this campaign-shortened legislative year, further action is unlikely.

Now the sponsor of the bill, Rep. Henry Waxman of California, and his supporters will have to wait until the 99th Congress convenes in January to reintroduce their proposals to reduce the amount of sulfur oxides in the air.

And Waxman, who chairs the Health and Environment subcommittee, promises he will revive the issue next session. "Acid rain," he says, "is not an issue that will go away."

But proposals such as Waxman's to finance regional pollution control with a nationwide tax on \cdot electricity are bound to face stiff opposition next year.

"I'm not implacably opposed to acid rain legislation," said Rep. John Dingell of Michigan, the chairman of the Energy and Commerce Committee, which oversees the Waxman subcommittee. But in voting against Waxman's bill, he called the proposal intolerable, saying, "It is a nationwide financing bill, but not a nationwide control bill."

Central to the acid rain controversy is whether cleanup efforts will work, and who should pay. It has pitted regions of the country against each other, and even has supporters of acid rain control bickering among themselves.

New England contends that the

chief culprits are smokestacks in the industrial Midwest where coal is burned by utilities, steel plants, paper mills and other industries.

According to the U.S. Environmental Protection Agency, the four states with the highest sulfur oxide emissions in 1980 were Ohio, with 2.4 million tons, Pennsylvania and Indiana, with 1.8 million tons each, and Illinois, with 1.3 million tons.

Some Midwesterners say that the astronomical expense of controlling that pollution – possibly as much as \$6 billion a year – outweighs the uncertain effects on fish and trees. New Englanders disagree, saying their multi-billion dollar recreation industry is being threatened, and that the Midwest should pay for the cleanup.

Some researchers say that lowering industrial and vehicle emissions would reduce acid rain, but they don't know enough about the chemical action in the atmosphere to predict where the controls would take effect. In other words, no one knows whether curbing sulfur emissions in the Midwest would reduce acid rain in New England.

For that reason the utility industry, and the Reagan Administration, have called for more research before mandating expensive emission controls.

The nation's 1,000 rural electric cooperatives have urged a go-slow approach. A resolution adopted this year at the annual meeting of the National Rural Electric Cooperative Association notes that a nationwide program could greatly increase the cost of electricity to consumers, and that, "There is no validated scientific basis for assuring that further reductions in emission from coal-fired generating plants will result in meaningful reductions of acidic deposition anywhere in North America."

Meanwhile, the South, which apparently neither creates nor suffers from acid rain, does not want to help pay for the cleanup. And the West doesn't want to share the cost, arguing that the lower-sulfur coal in that part of the country doesn't contribute to the problem.

Greater use of Western coal has been suggested as a way to lower sulfur emissions, but that could threaten the economy in the Eastern coal-mining region where higher-sulfur coal is mined. United Mine Workers President Richard Trumka says a switch to Western coal would eliminate the jobs of 26,000 coal miners and 61,000 other industrial workers in the four states with the highest emissions.

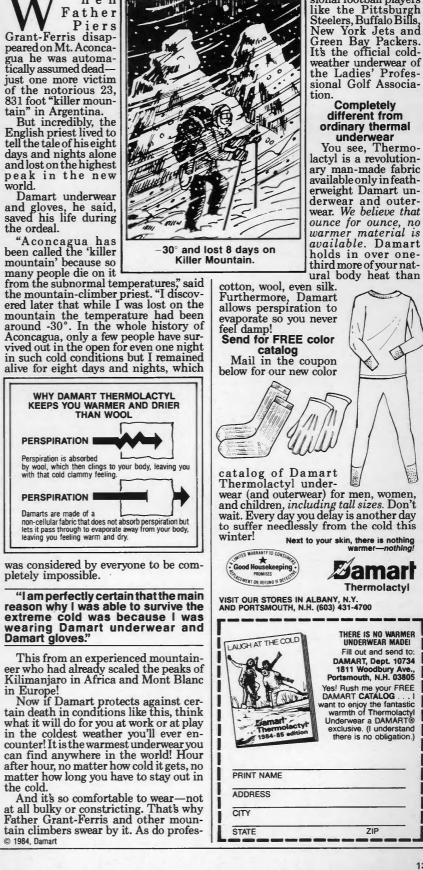
Most of this year's acid rain control bills reflected at least some of the Midwest's concerns.

Waxman's bill, which attracted the most attention, called for the 50 electric utilities with the highest sulfur emissions to reduce those emissions by six million tons by 1990. This would be achieved by installing filtering devices called scrubbers. All coal-fired power plants built since 1978 have scrubbers, which can account for more than 25 percent of a plant's construction and operating costs.

Under Waxman's bill, 90 percent of the cost of installing scrubbers would have been paid from a \$1 billion trust fund, supported by a tax of one mill (one-tenth of one cent) per kilowatthour on all nonnuclear electricity. That tax would have cost the average household about 75 cents a month.

Another bill, sponsored by Reps. ILLINOIS RURAL ELECTRIC NEWS

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DAMARTS SAVED MY LIFE.

Father Piers Grant-Ferris' true story

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Father Piers

Grant-Ferris disap-peared on Mt. Aconcagua he was automa-tically assumed dead-

just one more victim of the notorious 23, 831 foot "killer moun-tain" in Argentina.

But incredibly, the English priest lived to

tell the tale of his eight days and nights alone

and lost on the highest

peak in the new

and gloves, he said, saved his life during

"Aconcagua has been called the 'killer

PERSPIRATION I Perspiration is absorbed

PERSPIRATION

pletely impossible.

the cold.

© 1984, Damart

Damart underwear

world.

the ordeal.

sional football players



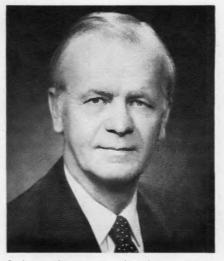
Bergland parries attacks RE legislation awaits Senate vote

Legislation that would provide a secure source of financing for rural electric systems for the foreseeable future has cleared the Senate Agriculture, Nutrition and Forestry Committee and been reported out for consideration by the full Senate, but not without strong opposition from the Reagan Administration and strong attacks from a brigade of conservative, right-wing, anti-rural electrification critics.

The Senate Ag Committee reported the Rural Electric and Telephone Revolving Fund Self-Sufficiency Act out June 7 with only a single dissenting vote, and rural electric leaders from all over the country are concentrating their efforts on Senate leadership to ensure that the measure gets a vote before Congress recesses for the fall election campaigns.

The Ag Committee approval came after three sets of subcommittee hearings during which a parade of Administration witnesses and others opposed to the bill consumed most of the hearing time, leaving little for rural electric spokesmen, who nonetheless carried the day with strong supportive statements for the legislation, which had passed the House of Representatives by an overwhelming 283-111 vote on March 1.

While the Senate Ag Committee was giving its blessing to the legislation, which is nearly identical to the House version, a concerted anti-rural electrification media campaign, spearheaded by the U.S. Chamber of Commerce and carried out through the writing and commentary of several conservative right-wing news commentators with connections to either the Chamber had joined ranks with groups



Bob Bergland, executive vice president of the National Rural Electric Cooperative Association, countered attacks on the rural electrification program and on legislation designed to keep the program strong with a spirited response to right-wing, conservative critics.

U.S. Chamber or the conservative Heritage Foundation, spurred the nation's top rural electric spokesman to issue a statement deploring the campaign.

Bob Bergland, executive vice president of the National Rural Electric Cooperative Association (NRECA), the national service organization of the nation's 1,000 rural electric systems serving more than 25 million people in 46 states, called a U.S. Chamber of Commerce campaign aimed at blocking full Senate consideration of rural electric financing legislation a "disservice to the merchants and industries of America's small towns."

Bergland warned that the U.S.

identified with the conservative right to back Reagan Administration efforts aimed at discrediting the rural electrification program.

The legislation, S. 1300, would allow interest rates on loans to Rural Electrification Administration (REA) borrowers to rise moderately to ensure the solvency of the Fund. Without this action, the Fund would go bankrupt sometime after the year 2000 because record inflation and high interest rates of recent years have put unexpected strains on the Revolving Fund. The legislation would also postpone indefinitely the repayment of \$7.9 billion from REA to the Treasury over a 24-year period beginning in 1993.

Bergland said that "the Administration, the U.S. Chamber, the Heritage Foundation and others in recent weeks have stepped up an anti-REA campaign calculated to keep the legislation off the Senate floor for full Senate consideration."

Richard L. Lesher, president of the U.S. Chamber, in at least two signed editorials circulated to newspapers throughout the country, claimed that the job of rural electrification is over, and has repeated Administration arguments against the legislation. Richard W. Rahn, the U.S. Chamber's chief economist, in a radio commentary entitled, "Economic Outlook Report," attacked both the legislation and the REA program. The commentary was distributed through Radio America, a distribution service funded by the conservative American Studies Center. Rahn was not identified in the commentary as an official of the U.S. Chamber.

Bergland was critical of the accu-ILLINOIS RURAL ELECTRIC NEWS

it's a cold, hard fact: electric rates are going higher!

Cute slogans and fancy language cannot change the fact that electric rates are going higher for every utility in Illinois and all across the nation. Sky-high interest rates, rising fuel and construction costs and the cumulative effect of government regulations have already ensured that your electric rates will continue to rise for several years even if the prices of other products level off. It's an economic fact of life.

If you're a member of an electric cooperative, you can be assured that your electric rate will rise no more than is necessary to cover the cost of providing your electric service. This is because your electric rates are set by the friends and neighbors you elect to serve on your cooperative's board of directors. And, they don't like higher electric rates any better than vou do.

Even with today's higher rates, electricity continues to be one of your most cost-effective servants. That's a fact, too.

racy and motivation of critics of vate market for their finance." Berg-S. 1300. "I think the purpose of the land characterized the paper as "not Chamber of Commerce, the Admini- an objective study, but a propaganda stration and other critics has very little attack to support a preconceived to do with the legislation they are notion that America doesn't need opposing. I believe the unusually vitriolic campaign grows out of the Heritage Foundation's blueprint handed the Administration on the eve of President Reagan's inauguration which has been adopted by the Administration as its own," Bergland said.

mission, and concluded that "it is time first consulting rural electric leaders. for ... borrowers to turn to the pri- No consultation took place. September 1984

REA."

Bergland noted that the Administration has for four years attempted unsuccessfully to drastically cut the REA program and ultimately proposed legislation that would dismantle the rural electrification program despite a promise in 1980 from then-candidate The Heritage Foundation report Ronald Reagan that no changes would claimed that REA had completed its be made in the REA program without



Sharon Goodwin

Sharon Goodwin extends thanks for D.C. tour

My name is Sharon Goodwin, and I am a winner of the REA "Youth to Washington" essay contest. I was able to achieve this privilege through the suggestion of my English teacher, Mrs. JoAnna Lane, that I write an essay for REA to enter in this contest. Thanks also go to REA for sponsoring such a contest and tour.

The REA tour of Washington proved to be excellent. Through REA, I saw many places I would otherwise never have had the opportunity to see. The meetings with government officials were of special interest to me. We also toured many places in Washington, including the White House and Arlington National Cemetery. As another highlight, a dance was held aboard a boat on the Potomac River. Every minute in Washington was filled with something of interest.

While in Washington, members of the Youth Consulting Board met for their first time. Members of the YCB are chosen by election, with each state getting one representative. I was elected to represent Illinois. This first meeting allowed members to elect officers and to get acquainted. The annual YCB meeting will be at New Orleans in February.

I am very happy to have had the opportunity to take the "Youth to Washington" tour provided by REA. The friends and memories I made will last a lifetime.

15

LIVESTOCK BUILDINGS

Moisture and dust protection important consideration for the service entrance

L ocate the service entrance equipment, the conduit, fittings, service disconnect box, and the electrical distribution panels in a dry and preferably dust-free location outside the area where the livestock is confined. Use an entry way, office or separate room for this equipment. If the service entrance equipment is located inside the livestock confinement area, then the service panel must have a weatherproof enclosure.

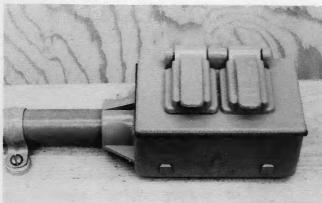
Mount fire-resistant material such as cement-asbestos board behind the service entrance panel. In addition, use spacers to provide a one-inch air space between the service panel and the building wall. This prevents condensation on the walls from running into (This article is the second of two parts reprinted from an Illinois Farm Electrification Council fact sheet and was written by Roland Espenschied, Professor of Agricultural-Engineering at the University of Illinois. The first article appeared in August.)

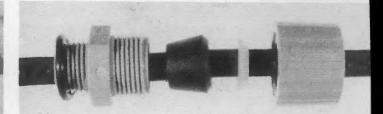
the box. The air space also keeps the panel nearer to the room temperature, reducing the possibility of condensing water inside the panel.

When metal raceways are used to enclose the service entrance conductors, pack both ends with a sealing compound to fill all of the voids between the conductors and the sides of the metal raceways. This prevents condensation caused by circulation of warm moist air to a cold area.

Protect each circuit with its own fuse or circuit breaker. Select the size of the devices so that they are in accordance with the size of the conductors used in the circuit and do not load the circuits to more than 80 percent of the circuit rating listed in Table II. This sort of load control is especially important for applications in which electrical loads continue for long periods of time, as is the case with the use of heat lamps and exhaust fans.

Install type UF cable for all electric circuits in these buildings, and mount

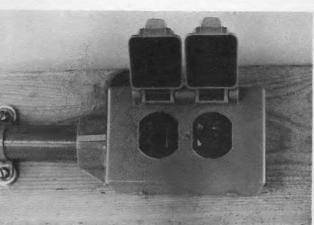




Nonmetallic cable connectors assure dust- and watertight fit of cable into nonmetallic enclosures.



When standard metal service equipment is used, locate it in a clea dry room adjacent to livestock rearing area. Conduit should en side or bottom with ends sealed.



Switches and/or receptacles mounted in dust- and watertight, gasketed enclosures should be positioned with hinge at top when possible. Keep covers closed when not in use.

improved management.

"Great strides have been taken to preserve the traditional integrity of the balance sheets of our best known cooperative," Condit said. "In the past year, we have seen several co-op boards approve the installation of topflight management teams – executives of known and acknowledged capacity to compete."

REA's Hunter said that rural electric and telephone cooperatives are in a much different operating environment today, one that points up the need for good management from co-op directors and managers. Hunter says that today, cooperatives have matured and have "experienced directors, managers and staff that need less instructtion in how to do their jobs."

Two agricultural cooperative leaders, Wayne Boutwell, president of the National Council of Farmer Cooperatives, and Randall E. Torgerson, administrator of the USDA's Agricultural Cooperative Service (ACS), said that indelible lessons have been learned. "The evolving structure of U.S. agriculture has stimulated changes in the farm co-op system and this has resulted in a more efficient cooperative industry which remains highly responsive to the needs of its ownercustomers," Boutwell said.

Torgerson says that co-ops are poised to enter a new dimension of business activity and growth. "Hard, but valuable lessons of the inflationary 1970's and the potpourri of adverse factors in the 1980's have sharpened cooperative leadership," he said.

The cooperative future could continue to chip away at a comfort of the past, member loyalty, says Charles B. Gill, chief executive officer of the



and zeal of our current co-op members that was exhibited by those who formed our cooperatives," he said. He added that sound business practices, in addition to maintaining loyalty, will become a greater priority for cooperatives.

Bob Bergland, executive vice president and general manager of the National Rural Electric Cooperative Association (NRECA), agrees that competition is getting tough. "New competition is growing where it didn't exist before," he said. "The real test of cooperatives is whether they can adapt to the changing environment. Co-ops have always succeeded when they found a niche. Those niches are changing."

In their views of change, the cooperative leaders had specific ideas for the future that reflected their areas of cooperative endeavor, yet there was a national trade," he said.

The Cooperative League's E. Morgan Williams puts special emphasis on international trade. "For American cooperatives to grow and survive, they must expand their horizons," he said. "One major challenge will be in the international arena. Our cooperatives must do more internationally. Co-ops around the world want to do business with ours. We must be willing to participate in the world markets and with the various international cooperative business systems."

"We must look for ways to push into new lines of business," says CUNA's Jim Williams in agreement. "We must use our strength, which is our tremendous membership base, to become successful marketers of products and services – our own, those produced by other cooperatives and those from outside suppliers. And we

othing new for cooperatives

National Rural Utilities Cooperative Finance Corporation (CFC). "The competitive posture of cooperatives is being tested as never before and in this environment it becomes increasingly difficult to maintain the same interest shared undercurrent of renewal. ACS's Torgerson said that significant consolidations and coordination are strengthening co-ops' ability to compete. "Cooperatives are prepared for expanded roles in processing and intermust create a network of cooperative groups that will allow us to work together."

Rural electric leaders Bergland at NRECA and Gill at CFC both look (Continued on page 17)



Endicott responds to 'misleading statements' at Grayville City Council discussion

Several untrue or misleading statements were made in September during the Grayville City Council discussions about electric service to a newly annexed area south of Grayville. Bill Endicott, manager of Wayne-White Counties Electric Cooperative, expressed particular concern about a claim during the Council discussion that rates charged by Central Illinois Public Service Company "are 30 to 40 percent lower" than rates charged by Wayne-White. CIPS is the Springfield-based, investor-owned utility that serves within the corporate limits of Grayville.

"The rates of Wayne-White Counties Electric Cooperative and CIPS are within pennies in the vast majority of cases," Endicott said. "Only in one or two very limited cases are CIPS rates substantially below ours. Of course, we could point to other limited cases, such as the small industrial rate, where Wayne-White is 37 percent below CIPS at the 500 kilowatt-hour level.

"The important point is that rates between the two organizations are comparable and should not have entered into the Grayville City Council decision on which utility should have the right to serve the areas newly annexed to Grayville."

Wayne-White Counties Electric Cooperative has provided electric service to the unincorporated areas around Grayville as it does to other rural areas of Edwards, Wayne and White counties. "There are ample state laws and local interutility agreements protecting each utility's service territory," Endicott said.

"We owe it to our members to protect the service territory in which the cooperative has invested to develop. We will use the legal protections we have available to ensure the integrity of the cooperative's service territory," Endicott said, and expressed his desire to work with Grayville city officials now and in the future.

Wayne-White Counties Electric Cooperative provides electric service to more than 13,150 meters over 3,200 miles of energized line throughout rural portions of Wayne, White, Edwards, Wabash, Hamilton, Jefferson, Gallatin, Richland, Clay, Franklin and Marion counties. It is a nonprofit corporation governed by a board of directors elected from among the consumers it serves.

You can't stockpile kilowatts

Electric power has to be produced as needed to meet demand, and demand is expected to increase sharply over the next two decades, partly because of population growth, partly because of heavier reliance on electric power to replace gas and oil.

Our nation's present generating capacity is approximately 555,000,000 kilowatts (kw). The most conservative government and industry forecasts show that by 1990 electric utilities must be able to produce 300,000,000 kw more – and by the year 2000 another 200,000,000 on top of that. Figuring the average plant's capacity at one million kw, that means up to 500 new generating stations must be built in just 20 short years.

There is a problem. A coal-fired plant started this year may take as much as 10 years to complete, a nuclear plant as many as 14, and half the plants required aren't even under construction yet.

Can generating plants be built faster?

Yes, if some of the red tape is stripped from the licensing and regulatory process. Right now we are looking at five to seven years just for the paperwork on a million-kw coal-fired station – years that cost consumers dearly. Every day's delay in construction, while power plant developers struggle through a jungle of overlapping, unclear, sometimes irrational rules and regulations, adds more than \$300,000 to that coal-fired plant's cost.

Regulators themselves are saying it's come to the point where about 30 percent of the average electric bill goes for regulation. Americans cannot afford the delays. Consumers can't afford to pay the bill.

Energy rules and regulations can, and must, be analyzed, consolidated and eliminated where they serve no real purpose. A nation as utterly dependent on energy as ours must regulate to facilitate the achievement of objectives for the public good. Regulation gone berserk is not.

ILLINOIS RURAL ELECTRIC NEWS



When President Abraham Lincoln delivered his famous Gettysburg Address, he emphasized the word "people" in his famous line "Government of the people, by the people and for the people."

Today millions of people have put that idea to work providing all kinds of goods and services to meet the needs of people. These people are members of cooperatives. More than 60 million people rely on and use the services of the more than 40,000 cooperatives in existence in the United States today.

The cooperative way of conducting business has an impressive track record. The reason is simple – co-op's provide an efficient economical way of meeting common needs of people. October has been designated nationally as Co-op Month to recognize their contribution to providing a better way of life for Americans.

The first U.S. Cooperative was formed in 1752 to insure a group of Philadelphians against the loss of their homes by fire. Since then, cooperatives have been formed to provide practically every product or service demanded by the people of the United States.

For example, rural electric cooperatives were formed to bring electricity to the rural areas when no one else would do it. Because there were so few members per mile of line, power companies said it was not feasible to provide electricity to rural areas. But rural people, cooperatively, literally lit up the countryside. They banded together and hired professionals to put up poles, string lines, hook up the farms and rural villages, and manage the service.

Cooperatives are found in urban, rural and suburban areas all over the country. Owned by the people they serve, they operate at cost - not for profit.

Whether large or small, rural or urban, cooperatives follow the same concept of member ownership and member participation in the decision making process. Members elect a board of directors from among themselves and adopt a set of bylaws.

The board of directors is responsible for setting policies to guide the operation of the cooperative, consistent with the bylaws approved by the S membership. The board of directors may hire a manager who is responsible for the day to day management of the cooperative. The manager is responsible to the board and the board is accountable to the membership. Each member has one vote on matters considered by the membership at their annual meetings.

In addition to providing products and services to its membership, cooperatives are also important to the communities they serve. Cooperatives provide jobs, pay taxes – real estate property taxes, sales and excise taxes, motor vehicle gasoline taxes and generally all other taxes paid by businesses and corporations.

Most cooperatives do not pay federal or state income taxes because they have no net profit.

Rural electric cooperatives are vital to rural areas, as they provide the basic link in the energy chain that produces agriculture goods, powers business and industry and insures a reliable supply of electricity for the rural area.

Wayne-White Counties Electric Cooperative was formed in 1936. Its first 183 miles of line was energized to serve 953 member-owners in Wayne and White counties. Today, Wayne-White serves 13,153 meters on 3,188 miles of electric distribution line in all or parts of Wayne, White, Edwards, Wabash, Hamilton, Jefferson, Gallatin, Richland, Clay, Franklin and Marion counties. WWEC has an annual payroll of \$1,637,891 and paid local, state and federal taxes of over \$1,097,788 in 1983.

Join us in observance of Cooperative Month. Come visit the Cooperative office and observe your Cooperative at work.

Electricity usage buyer's decision

When you plug in an electric appliance or flip a light switch, you are making a buyer's decision to purchase electricity. You may not be as conscious of your purchase as you would be if you were at a store, but, just the same, you're buying a commodity. And when your bill arrives and you see that you bought more than you intended, it's too late to do anything about it.

Part of the problem with higherthan-expected usage is that clean, efficient electricity is so convenient to use. It's become such a major part of modern life that we tend to forget the costs attached to the bundle of wonderful services that electricity provides. And that may cause you to use more electricity than is really needed.

The first step toward efficient energy use is to be aware of your usage habits. Every time you flip a light switch or plug in an appliance, ask yourself, "Is this the best buy for my energy dollar?" If electricity is helping you save hours of tedious labor, the answer is yes. If electricity is operating a television and lamp in an empty room, you're throwing money away.

New Electronic Pain Killer...

relieves muscular backache, headache, even pain of tennis elbow, arthritis & bursitis!

Tested by doctors, INFRALUX[™] is handheld and portable. Its infrared heat relieves pain without medication! Try it FREE for 30 days!

Here's quick relief from pain — whether you suffer from arthritis, bursitis, sinus headaches, tennis elbow, muscular backache, neuralgia, sprains or nearly any other painful musculoskeletal condition. Use INFRALUX infrared pain reliever and within minutes get on with work or play.

SOOTHING PAIN RELIEF. BUT WHY INFRARED HEAT?

There is nothing new about infrared heat. Doctors and therapists have used and recommended it for years in pain treatment. But until now, there hasn't been a compact, easy-to-use unit



INFRALUX is easy to carry too in its handsome vinyl bag. No bigger than a small flashlight (six inches long). Plugs in any 110V outlet.

Why infrared? With ordinary methods such as heating pads and hot water bottles, much of the heat is dissipated on the skin's surface. There's no lasting effect.

But with infrared heat, the treatment goes down d-e-e-p where you need it. In fact, INFRALUX's shortwave, visible infrared heat will penetrate up to 10 mm of skin tissue to reach irritated nerve endings. Your INFRALUX seeks, finds and soothes!

ELIMINATE UNNECESSARY MEDICATION

In fact, William J. Shriber, MD notes in his respected "Manual of Electro Therapy" THAT MILD INFRARED RADIATION MIGHT BE THE ONLY WAY TO RELIEVE PAIN WITHOUT THE USE OF MEDICATION.

RECOMMENDED BY DOCTORS FROM AN ACTUAL DOCTOR'S REPORT ON INFRALUX: "On patients with a variety of muscleskeletal painful conditions, Infralux was demonstrated to be effective in relieving pain." V.S., MD

NOTE: INFRALUX is a medical device and should be used in accordance with directions. Sale! \$29%

Why take medication when it isn't needed? INFRALUX is the most natural route to pain relief:

HOW THE INFRALUX WORKS

All you do is hold the INFRALUX unit next to where you hurt. It even works thru clothing! Within moments, you'll sense comforting, soothing heat.

INFRALUX heat goes to where the pain is — to blood vessels, nerve endings, and other subcutaneous tissue.

USE AS OFTEN AS NEEDED.

Unlike drugs and medication, INFRALUX can be used as often as you like. It's made to help you day and night, at home or at work. And be sure to pack it for out-of-town trips. You can enjoy soothing relief wherever, and whenever.

TRY IT FOR YOURSELF

The minute your INFRALUX arrives in the mail, give it a good try. Put it to the test on that nagging backache, that stiff neck, those arthritic pains that hit so suddenly. If, after a month, you're not astounded at how much better you feel, return it for a full refund.

HERE'S HOW TO ORDER

INFRALUX is only **\$29.95** (plus \$2.85 shipping and handling). To order, simply send your check to Innovations at the address below. Credit card holders can speed their delivery by using our toll-free number. (Maryland residents add 5% tax.)

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All other times, or if busy, call 800-257-7850 Maryland residents call 363-4304

Be ready the next time pain interrupts your schedule. Order an INFRALUX today!



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Threshing bee!

(Continued from page 5)

shingle splitting display came aboard, to add more of an old-time feel. Attendance continued to climb, too. In fact, the show's success was becoming something of an embarrassment.

While generous farmers had, in the past, given over 15-20 acres of their farms to the event, that was no longer enough. The show's backers started looking for property to buy, to give the itinerant exhibition a permanent home. Just as it began to look as though the eighth annual show would be a nonstarter, a 40-acre tract came on the market at an affordable price and the organization cheerfully snapped it up. Between the January purchase date and the traditional August show, members, using generous contributions of money and labor, cleared out unwanted trees and fences, hauled gravel, and put up a permanent building. Other permanent buildings have since been added, including a railroad station moved in from Bushnell, along with a caboose and other hardware.

The show has added some kind of attraction each year, including a vintage tractor pull and a kiddie tractor pull. As word gets around, and the show adds more and more attractions, exhibits and attendance both continue to increase. From the humble beginnings in 1968, when some 30 cars and tractors were shown, the show has grown to more than 100 cars and trucks and a like number of tractors. There were 28 crafts exhibits too, and more than 12,000 persons, some from as far away as California, showed up to have a nostalgic good time.

This year's show was the best, McVeigh says, and next year's will be better yet, if the past is any indication.



ILLINOIS RURAL ELECTRIC NEWS

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Area cooperatives celebrate Co-op Month

Working together for a common goal has been a necessity through the ages. But only within the past 150 years have people intentionally organized cooperative business enterprises.

A cooperative is a business voluntarily owned and controlled by its members. It is operated for them, and sometimes by them, on a not-forprofit basis. Cooperatives originated within an open "free enterprise" economy, and they have had to provide service under competitive conditions. Today, they exist worldwide and are found within various economic systems. The primary orientation however, is still the same service to members.

Working together for a common goal is the basis that Wayne-White Counties Electric Cooperative has been emphasizing for the last month. Every year there is one month set aside to observe the creation of cooperatives and their purpose. October is observed as cooperative month to help us remember our past and look forward to our future.

Month Cooperative activities started for Wayne-White on Oct. 2, in Wayne County at the North Side Grade School. The following cooperative organizations sponsored and helped present an educational program for the Wayne County area: Wayne Edwards County and County Cooperative Extension Ser- County for cooperative month. In vice, The Federal Land Bank Associa- Edwards County, six cooperatives tion of Southeastern Illinois, Wabash took part in cooperative activities: Production Credit Association, Wabash Edwards County Telephone Cooperative, Wabash Valley Wabash Valley Service Company, Service Company, Wayne County Wayne-White Counties Electric Coop-Farm Bureau, and Wayne-White Coun- erative, Federal Land Bank, Edwards ties Electric Cooperative. The program County Cooperative Extension Service was a "Meet the Candidate Night." and the Wabash Telephone Coopera-Local and state candidates were tive. The two-hour program featured invited to express their views and then Illinois Director of Agriculture Larry answer questions from the audience.

Along the same theme, the White Night." County cooperative meeting took place on Oct. 11 at the Farm Bureau to the group in Edwards County, a Building in Carmi. The program was similar type of meeting was being consponsored by the following coopera- ducted in Hamilton County. Approxitives in White County: Farmers Mutual mately 120 people attended a barbe-Fire and Lightning Insurance Co., cue dinner held in the Hamilton Federal Land Bank Association, Pro- County courthouse basement. A duction Credit Association, Wabash speaker from the Association of Valley Service Company, Wayne-White Illinois Electric Cooperatives, Bob Counties Electric Cooperative, White Patton, talked about cooperatives' role County Cooperative Extension and in today's business. The Hamilton White County Farm Bureau. All County program was sponsored by the local candidates and the candidates for following cooperatives: the state offices are invited to present County Farm Bureau, Country Comtheir views on important agricultural panies, Federal Land Bank, Production issues, and the public was invited to Credit Association, Cooperative Extenask questions on issues that concerned sion Service, Wabash Valley Service them.

involved in two different meetings in Wayne-White Counties Electric Coop-

Hamilton Farm Bureau. Werries for a "Farmer-Businessman

While Director Werries was speaking Hamilton Company, Southeastern Electric Coop-On Oct. 22, Wayne-White was erative IPLA, Prairie Farms and erative.

> Trying to provide educational programs to all the areas that we serve will always be one of our goals - always looking with pride in our past and with the undaunting faith in our future, born out of need and continuing to serve. Overall, cooperative members belong to a business community characterized by self-help, operations at cost, and service to their members and society.



ILLINOIS RURAL ELECTRIC NEWS

Handy ideas to help you stop wasting energy

3. Try setting your thermostat back to

55 degrees F. at night while you're

sleeping or during the day while you're

at work. It's easy to do and it doesn't

4. Use a low water level when you

take a bath and you can cut your

water use by at least one-third. That

means you didn't need to heat that

amount of water and you saved

energy. You can also save energy by

taking a "quick" shower instead of a

bath. You can save 6 percent of the

energy that is wasted by "filling" the

tub or by taking a "long" shower. And

No expense

1. Set your thermostat back to 65 degrees or 68 degrees F. You can cut your energy consumption by 3 percent for each degree you set the thermostat back. You can save up to 25 percent of your wasted energy by simply setting the thermostat back – and it doesn't cost you a penny!

2. Setting your water heater thermostat back to 120 degrees F. can save 10 percent of the energy being wasted in your home. It doesn't cost a penny to set it back!

Capital credits refunds due in December

Members who received electric service from Wayne-White Counties Electric Cooperative during the year 1960 will be receiving patronage refund checks the first part of December. The refunds will total \$177,153.11, which is 50 percent of the capital furnished by the members during that year.

cost a penny!

As in the past and according to the bylaws, refunds are made on a firstserved, first-refunded basis. The checks will range from a few dollars for the smaller users to several hundred dollars for the larger electrical users.



Thanksgiving is a time set aside each year for everyone to pause and think of the blessings they have received during the year. As employees of your cooperative, we have many things to be thankful for.

First and most important are our good members. Members who know and appreciate their cooperative, help us by providing the right-ofway for our lines, by reading their meters, by paying their bills promptly, and by notifying us about service interruptions.

We appreciate our members' good nature and helpful attitude when conditions beyond our control cause an interruption in electrical service.

We wish to thank our members for their cooperation and assistance



during the past year and hope that each and every one has a blessed and happy Thanksgiving. remember, it doesn't cost a penny!

Small cost

1. Tune-up and clean-up your furnace. Change those dirty filters! Make sure the furnace has plenty of fresh air to burn properly. These things don't cost much, but they can help you save 17 percent of your wasted energy.

2. It doesn't cost much to caulk around windows, doors, cracked siding, and other places where cold air gets into your home. It doesn't cost much to put weather stripping around your doors and windows. By careful caulking and weather stripping you can save 8 percent of the energy your house is wasting.

3. By putting inexpensive "plastic" on your screen doors and over your windows, on the inside or outside, you can cut-out 3 percent of the energy being lost or wasted by your house.

Large return

The insulation you put in your attic will pay for itself in energy savings. You can install it as a do-it-your-self project, or hire a contractor to install it for you.

Meter testing program begins

It's meter testing time. Your cooperative has contracted Lowell Kerans Meter Testing Service of Wayne City to test meters on the members' premises. This meter testing program is scheduled for the months of October and November.

Meter testing is a continuing maintenance program whereby we test all meters on our system. This program is for the member's protection as well as the cooperative's.

Lowell Kerans has been providing this service to the Cooperative for several years. He will be driving a van that will have Wayne-White Counties Electric Cooperative identification on the door. If anyone other than Lowell or a Cooperative employee tries to test your meter or any other of your electric equipment, call the cooperative office.

4 to 6 chicken breasts 1 can mushroom soup, undiluted

1 (4-oz.) can sliced mushrooms and liquid

Arrange chicken in casserole. Mix all other ingredients and pour over chicken. Sprinkle generously with paprika. Bake uncovered at 350 degrees for about 1 hour or more. Baste frequently.

HOLIDAY POTATO DISH

- 4 lbs. unpared potatoes, cooked and drained
- cup chopped onion
- ¹/₄ cup butter 1 (10³/₄-oz.) can cond. cream of celery soup

pint dairy sour cream
 2 cups shredded cheddar cheese
 2 cup crushed corn flakes
 3 tablespoons melted butter Pimiento strips Chopped fresh parsley

package (10 oz.) frozen green peas, cooked and drained (about 11/2

cups) 1 package (12 oz.) frozen peeled and deveined raw shrimp, cut in half lengthwise

cups cooked rice can (3 oz.) rice noodles or chow mein noodles

Remove skin from potatoes, shred into bowl. Saute onion in butter until tender. Remove from heat. Stir in soup and sour cream. Pour over potatoes and cheese; mix well. Turn into greased 13x9x1-inch baking dish. Cover, refrigerate overnight. Sprinkle with corn flakes, drizzle with 3 tablespoons butter. Bake in 350 degree oven for 1 hour. Garnish with pimiento and parsley. Makes 12 servings.

CHEE-7Y RICE BALLS

4	cups hot cooked rice	1/4	cup minced onion
	cups grated sharp Cheddar cheese	3	tablespoons creole mustard
2	eggs, slightly beaten		drops Tabasco pepper sauce
	teaspoons salt		cups soft bread crumbs

n paprika Combine all ingredients except bread crumbs and paprika. Chill. Form into small balls using 1 tablespoon mixture for each. Blend bread crumbs and paprika. Roll balls in crumbs. Deep fat fry at 375 degrees until golden brown, about 3 minutes. Drain on absorbent paper. Serve hot. For variety, add one of the following: 2 cups ground cooked ham or 3/4 cup canned chopped green chilies, 3 tablespoons chili powder

1

cups)

drained or HOLIDAY SHRIMP AND RICE CASSEROLE

- 1/4 cup butter or margarine 1/2 cup flour 2 cups half-and-half (cream and milk)
- 1/2 1/4 2

- 1/2
- cups half-and-half (cream and cup dry sherry cup tomato paste teaspoons salt teaspoon onion powder teaspoon pepper tablespoon lemon juice can (4 or.) sliced mushrooms, drained

Melt butter; stir in flour to make a smooth paste. Gradually blend in half-and-half; simmer about 5 minutes, stirring constantly. Stir in sherry, tomato paste, seasonings, lemon juice, mushy. Stir in sherry, foliate paste, seasonings, fention joic, most-rooms, peas, shrimp, and rice. Turn into a greased shallow 2½-quart baking dish. Sprinkle with noodles. Bake at 350 degrees for 25 minutes or until hot and bubbly. 6 to 8 servings. HAWAIIAN-STYLE RICE SALAD

- 10 ounces cooked ham, cut in thin
- strips (2 cups) 3 cups cool cooked rice 1 can (16 oz.) sliced peaches, drained
- 11/2 cups sliced celery 1/2 cup chutney, chopped
- 1 teaspoon curry powder 1 teaspoon seasoned pepper 1/2 cup sour cream 1/4 cup mayonnaise 1/2 cup sliced almonds, toasted

Combine all ingredients except almonds. Toss lightly. Serve on beds of salad greens. Sprinkle with almonds. 8 servings.

DUCK AND RICE

- cans cream of mushroom 21 soup can mushrooms (optional)
- cups broth box chicken Rice-A-Roni box Uncle Ben's chicken-1
- flavored rice medium onions
- 2

2 ducks

51/2

- 3 tablespoons soy sauce Salt, pepper, garlic salt 4 tablespoons butter or bacon drippings

2 medium green peppers Cook ducks until tender, take meat off bones. Saute chopped onion, pepper, and Rice-A-Roni in butter or drippings. Salt, pepper and garlic salt to taste. Transfer to a large pot or casserole. Add 51/2 cups of duck broth, remaining rice and seasonings, soy sauce, duck, mushrooms and mushroom soup. Simmer 30 minutes or until broth is absorbed. Add more broth if needed.

SQUIRREL MULLIGAN

- 15 to 20 squirrels

- b. 20 squittes
 b. dry salt meat, cut into V2-inch cubes
 stalk celery, chopped fine
 to 8 onions, chopped fine
 pkg. carrots, chopped fine
- 8 to 10 potatoes, chopped fine 2 cans whole kernel corn 1 can tomatoes 2 cans English peas 2 cans hot Rotel tomatoes Salt and pepper to taste

Put squirrels on to cook in water. We use wash pot in the yard. Cook squirrels until tender. Remove squirrels from broth. You may remove bones, but we prefer not to. Use broth to cook remaining ingredients, then put squirrels back in when all is done. Serve with big green salad and Mexican corn bread to a big crowd. It freezes well.

VENISON IN WINE

Braise venison steaks or roast in skillet. Then add 1 chopped medium onion and 1 cup red wine (burgundy, claret or rose') to your water in roast pan. You may add herbs (salt, pepper and oregano are good). Cook at 350 degrees to desired tenderness. Make gravy when roast is done.

A head start on the holidays

1/2 cup shortening

PUMPKIN COOKIES 2 cups flour 1 teaspoon baking powder 1 teaspoon cinnamon 1 teaspoon baking soda

cup sugar cup pumpkin

egg teaspoon vanilla

1/4 teaspoon salt

Cream the shortening and sugar. Add pumpkin, egg, and vanilla: beat well. Stir together flour and the next three ingredients and 1/4 teaspoon salt. Add to batter; mix well. Stir in raisins. Drop rounded teaspoonfuls 2 inches apart on greased cookie sheet. Bake at 350 degrees for about 15 minutes. Cool on rack. Makes about 3 dozen.

1 cup raisins

CALIFORNIA FRUITCAKE or Orange Candy Cake

- 1 cup butter or margarine 2 cups white sugar
- teaspoon vanilla
- 5 eggs at room temperature 3½ cups sifted all-purpose flour ½ teaspoon soda

1/2 teaspoon source 1 teaspoon salt

Cream butter and sugar and vanilla until fluffy. Add the eggs one at a time and beat well after each addition. Add the $3\frac{1}{2}$ cups flour, soda and salt, alternately with buttermilk. Prepare the fruit and nuts and mix with the $\frac{1}{2}$ cup flour. Add last. Bake in a tube pan, or large bundt pan at 300 degrees for $2\frac{1}{2}$ hours. Watch carefully along toward the last as it has a tendency to burn. Cool in the pan on a rack and while hot pour on the following glaze: Glaze:

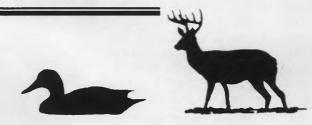
1 teaspoon grated orange and lemon peel

34 cup buttermilk 8 oz. pitted dates, cut fine 1 lb. orange candy slices, cut fine

2 cups chopped pecans 1 cup coconut

1/2 cup flour

Add ingredients together and cook glaze until syrup is reasonably thick, about 3 to 5 minutes. After glaze is poured on, let cool in the pan, for about an hour. Remove from the pan and let get cold. Wrap in foil and refrigerate for at least a day before using. This cake freezes well and keeps in the refrigerator quite a while. Mine seems dry until it has ripened about a week. It may be frosted or glazed when you are ready to use it.



WILD GAME RAGOUT

3 tablespoons olive oil 1 can tomato soup, undiluted 11/2 quarts water 2 tablespoons bourbon

- lbs. venison, elk or antelope large onions, chopped
- cloves garlic, crushed lb. bacon, chopped 5

3

1/2 lb. bacon, choppen 1 teaspoon curry powder

1/4 cup beer 1 tablespoon salt 1/2 lb. fresh mushrooms, sliced Place olive oil in electric skillet. Cut meat into cubes about $1\frac{1}{2}$ inches square. Add to hot oil with the onion, garlic and bacon. Cook until all is richly browned, stirring frequently. Add other ingredients except mushrooms; cover and simmer 50 minutes. Add mushrooms and simmer 10 minutes longer. Serve over rice. This dish reheats very well and can be prepared a day ahead of a dinner party. No need to marinate the game before using. In fact, it is better not to do so.

VENISON STROGANOFF 2 teaspoons salt 1 teaspoon pepper 1 can mushroom soup

1 cup sour cream

lbs. sirloin tablespoons	butter	or	margarine	
cup mushroo	ms			

1/2 1/2 cup mushrooms cup tomato juice

24

clove garlic, peeled and crushed

Cut meat into 34-inch cubes. Brown in butter and add tomato juice and mushrooms. Cover and simmer 30 minutes. Add remaining ingredients; simmer 1 hour. Serve over rice.

ILLINOIS RURAL ELECTRIC NEWS

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1/2 cup powdered sugar 1/4 cup lemon juice 1/4 cup orange juice

said, the use of straight gasoline can be disastrous. "Another 'red can' problem," he went on," is that people will sometimes take a used can that may have a pint of gasoline in it and fill it the rest of the way with kerosene on the assumption that such a small amount of gas won't do any harm. That's not true! A pint of gasoline in a five-gallon can of kerosene lowers the flash point from 140 degrees F to about 30-40 degrees, and that's a world of difference."

Smith said kerosene heating is now beginning to

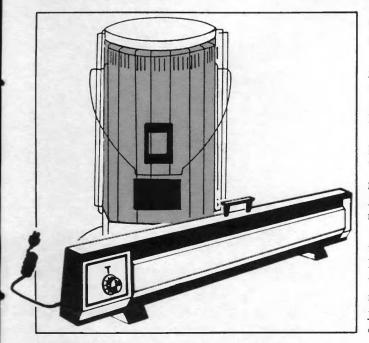
onsideration

approach the safety level electric heaters have had for years, while gas heat has involved far more accidents and wood heating fires are still on the increase.

Makers of kerosene heaters, gas heaters and electric units all warn against placing their heaters too close to combustible materials, and such misuse has been the cause of many fires. All also advise against drying damp articles of clothing by draping them over the heater.

Davis, of Country Companies, an insurance carrier, noted, that of all the heaters now coming into widespread use, the woodburning unit is probably the most difficult and expensive to install and operate safely.

"There are many rules that have to be followed to make an installation acceptable to an insurer," he said, "and many of them involve distance. For instance, there must be a certain distance from the stove to any combustible





Richard Hiatt of the AIEC staff explains safety techniques for electric space heating devices.

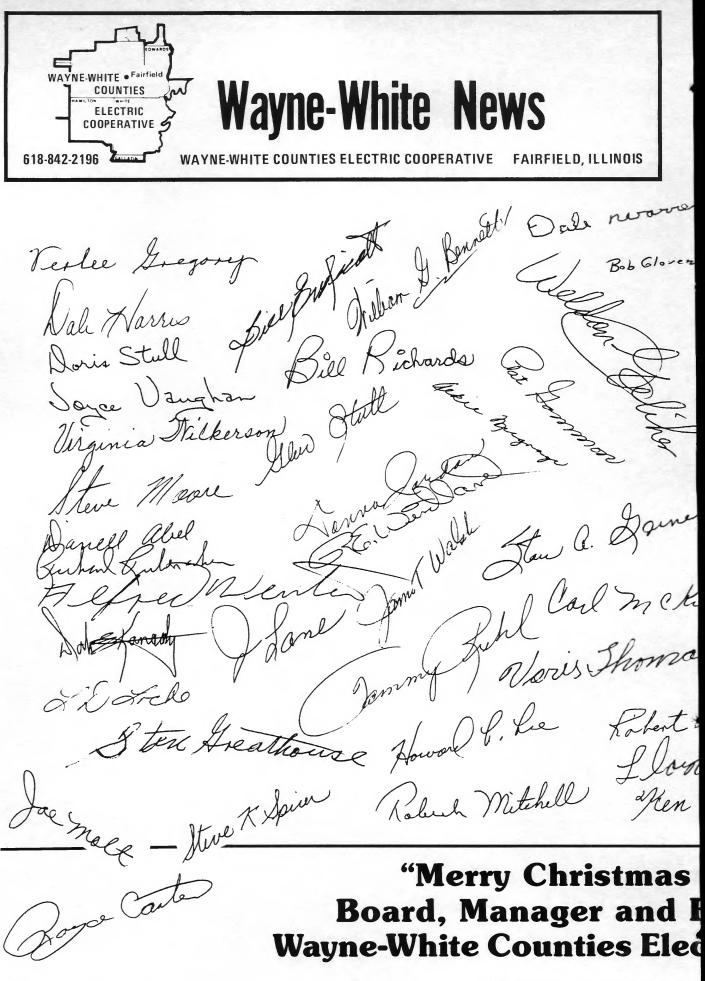
surface, and the pipes must have clearances, too. A properly installed stove and flue will take up an awful lot of space, and many people try to cut corners and 'fudge' a little. This is very dangerous. And any chimney must have a clay tile liner.

"Creosote build-up is another danger," Davis continued, "and the more efficient, modern, airtight stoves add to the problem, since they burn more slowly. Such systems should be checked frequently by a certified chimney sweep. In fact, we're so sold on the idea of cleaning and inspection that we give a \$20 rebate to a customer who has his system cleaned by a sweep."

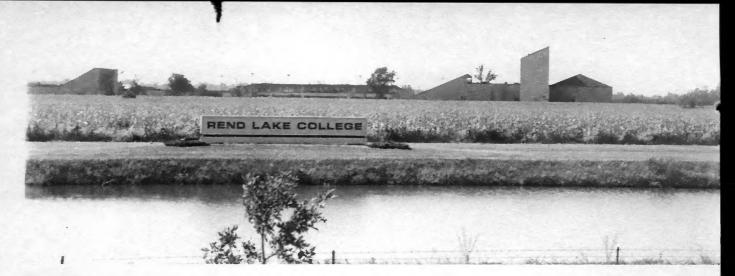
Quillan summarized the problem as a kind of generation gap. "One of the major problems," he stated, "is that nearly all of us are a generation or so away from the techniques needed to make wood stoves and portable space heaters safe and efficient.

"Our parents may have used one of the old kerosene heaters, or a woodburning stove, and they knew all the little ins and outs. There's a generation out there that's going to have to learn all those little techniques if they're going to get the most out of portable space heaters — no matter what kind — or wood stoves."

The workshops, Petralia said, were designed to bridge that gap. "We hope the community leaders here will take home the things we've brought out here and spread the word in their communities. If there's any one thing we've noted here it's that portable space heaters will do a good job if they're used for their intended purpose and used correctly."



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FMHS planned March 5-7 at Rend Lake College

Rend Lake College, located between Benton and Mt. Vernon, will be the site of the 1985 Southern Illinois Farm Materials Handling Show March 5-7. Seven electric cooperatives are among sponsors of the show, which for many years was held in Nashville. The show in 1985 will be the 24th. Electric cooperatives participating as sponsors include: Southern Illinois Electric, Dongola; Clinton County Electric, Breese; Tri-County Electric, Mt. Vernon; Egyptian Electric, Steeleville; Monroe County Electric, Waterloo; Southwestern Electric, Greenville, and Wayne-White Counties Electric, Fairfield. In addition to the cooperatives, other show sponsors are Illinois Power Company, area Cooperative Extension Service advisers in agriculture, and Southern Illinois University-Carbondale.

Moving the annual display of farm and farmstead equipment to the Rend Lake campus will give us better facilities and more exhibit space, said show coordinator Richard J. Patterson. "We also think the academic atmosphere of the campus will help us better maintain the educational purpose of the

