The Sioux City Journal

FARM WEEKLY

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Good Soybean Year

Early soybean harvest figures show outstanding yields this year in Siouxland — and the crop looks good on the Harold Russell farm near Granville, Iowa in O'Brien County. Russell (left) an Area Winner in the Journal-Chamber conservation program, visits with Kermit Berger, member of the Sioux City Chamber of Commerce agriculture committee. Beans here are on a recently terraced field. More pictures and a story of winning conservation farmers on page 2. Photo by Marc Cox, Journal farm editor.

IN THE FARM NEWS *this week.....*

Steep Terraces in Ida County

John Heilman, Ida Grove, Iowa, (left) and Don Kaufman, District Conservationist, SCS, Ida Grove, look over terraced land from steep ridgetops on the Heilman farm. Steep slopes have push-up terraces, filled in with extra soil from ridges.

Terraced Fields in Watershed

Neil Helvig, Sioux City Chamber ag member, and Area Winning conservation farmer Carl Huth, Jr., Cushing, Iowa, look over terraced fields. Huth's farm is in the Bitter Creek watershed of Ida County. Gully control work and structures will complement his upland soil treatment.

1972 Area Conservation Winners

By MARC COX
Journal Farm Editor

I'LL SWEAR ON a stack of soil surveys that we didn't plan it, but we ended our inspection of all of the contours and terraces on Alvin Storm's quarter-section precisely at 11:50.

"You guys might as well come in for lunch — you did plan on lunch didn't you?" asked Alvin. Stan Swanson and Kermit Berger and I dug our toes into the ground and said, "Shucks, No," but Alvin expertly twisted our arms and said his wife would be disappointed if we didn't sit up and have a 'light lunch' she had fixed.

In the Storm's beautiful, modern farm home kitchen, we lunched on homemade Italian spaghetti, bread, butter and fresh strawberry preserves and topped it off with giant dishes of ice cream, strawberry sauce and an oven-fresh wedge of chocolate layered brownie cake.

We thanked Mrs. Storm for her 'light lunch' and said we'd like to join them sometime for a full-fledged 'dinner.'

The Storms, who farm near Archer, Iowa, are among this year's 30 area winning conservation farmers receiving congratulations from the Sioux City Journal and Sioux City Chamber of Commerce in the 26th annual Program for Permanent Agriculture.

They, along with two other farmers, won the O'Brien County soil conservation district area honors. Winners in 10 areas in Iowa, Minnesota, Ne-

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His Beef Cow Herd Is Growing

Carl Huth, Jr., Cushing, Iowa, is shown with part of his beef cow herd: 30 cows, 16 heifers, a major enterprise on his half-section Ida County farm. With more conservation farming, he plans to expand the enterprise, in line with other Ida County farmers going into beef production.

Cobs, Straw and Newsprint Get Treatment:

Nebraska Studies Getting the Energy of Waste Residue

A physical treatment using pressure and high temperature, and a chemical treatment with sodium hydroxide both apparently "unlock" unused energy in crop residues and other agricultural wastes.

A University of Nebraska-Lincoln animal science researcher feels that the key to using larger quantities of agricultural cellulosic" wastes, such as crop residues, paper, wood by-products and fecal material, lies in making their tremendous stores of energy more available.

Ruminant animals, represented by cattle, sheep, goats and others, could then convert a waste product into a utilizable and nutritious product for human consumption," says D. Terry Klopfenstein, associate professor of animal science at NU.

Klopfenstein has been working since 1965 on ways to make more energy available from crop residues. The chemical treatment with sodium hydroxide (NaOH) and physical treatment, using a combination of high pressure and temperature, both appear promising. He believes the chemically-treated wastes to be equivalent to corn silage, and the pressure treated at least as good.

Remove from Bond

The "cellulosic" wastes he refers to are so named because they contain large amounts of the supportive fibrous material of plants — cellulose.

The unique digestive tract of the ruminant allows it to eat and make use of these agricultural cellulosic wastes that otherwise might not be used. Contained in their digestive tracts are micro-organisms that produce an enzyme capable of breaking down cellulose, making its energy available to the animal.

However, a substance called lignin acts as a cementing agent between the cellulose fibers. This bond often makes much of the cellulose indigestible, and so the energy contained in it is lost.

"With both the NaOH and the pressure treatments, the net result is to remove the cellulose fiber from the influence of the lignin," Klopfenstein explains.

Cellulosic wastes are now used primarily as maintenance rations for blood animals, or as roughages for finishing animals. As roughages, these wastes are required fo furnish "roughness" and bulk, so nutrient content is of little importance.

Even Newsprint

Corn cobs, straws, ground newsprint and sawdust are among the cellulosic wastes that have been used in cattle finishing rations, according to Klopfenstein, but cost of collection and handling often makes them too expensive.

"The greatest potential use of treated wastes," says Klopfenstein, "is for the growing calf that does not utilize the untreated material well. Reproducing females need added energy at certain stages of the reproductive cycle and could also use the treated wastes."

The NU researcher also speculates that if, in time, grain becomes limited, treated wastes will become a valuable feed source.

Although there are other chemicals that delignify better, NaOH was chosen as having the greatest potential for practical application in treating wastes because of its cost, safety, and nutritional acceptability.

Ensiling Method

Dr. Klopfenstein and Walter Koers, an animal science instructor formerly at NU, developed a successful ensiling method for storage of the treated grain. They feel it holds great promise because it is compatible with the management routine of many livestock producers who already understand and are equipped for ensiling.

Their process involves grinding the cellulosic material, then adding water to bring the moisture content to approximately 50 per cent. The material is placed in a horizontal mixer and NaOH added. After mixing for 3-10 minutes, the treated cellulosic material is ensiled; later fed daily. Spoilage will result in 24-48 hours if the material is left exposed.

In experiments by other researchers with wheat straw and barley straw, and in experiments by Klopfenstein with corn stover, corn cobs and whole corn plant, digestibility was increasingly improved when NaOH was added at rates up to eight per cent. About 8 per cent no further increase was observed.

Average daily gain, feed intake and feed conversion all have shown improvements in cattle and sheep. In earlier experiments at NU, sheep fed treated corn cobs showed improvement in daily gains with increasing NaOH levels, and consumed more feed, especially at the 4 or 5 per cent level.

Growing calves fed a ration of 80 per cent treated corn cobs showed definite improvement in average daily gain and feed conversion, and a trend toward increased daily intake compared to those fed untreated cobs.

"The NaOH-treated cobs would therefore seem to be of high energy value and of practical importance in calf growing programs," Klopfenstein states.

Protein Source

He notes that many of the cellulosic wastes are low in protein, having only 3-7 per cent, while the animal's requirement reaches 11-12. "The cost of supplemental protein is quite high, but can be reduced greatly if low-cost nitrogen sources such as urea could be used to substitute for at least part of the supplemental protein."

A possible solution was found by Victor Umunna of NU, who showed that a combination of urea and corn gluten meal is equal to soybean meal in supplementing NaOH-treated cobs while costing only one-half as much.

Responses to pressure treatment varied with each crop residue, Klopfenstein reports. Corn cobs responded more than straws or fodders. In two lamb growth trials, lambs fed treated cobs gained more rapidly and efficiently.

Support for the research on chemical and physical treatments has come from Western Region Research Laboratory, the Agricultural Research Service, and the USDA.

Further research is planned, says the NU animal scientist. "We will be repeating our work on a larger scale, under conditions typical of many Nebraska livestock operations. This January we hope to run a large cattle feeding trial with pressure treated corn cobs." He adds, "We are also interested in other protein sources and will be looking at these."

"At present the chemical treatment appears to be the most practical," Klopfenstine summarizes. "It is a procedure that might easily be carried out on the farm or ranch by adding NaOH, then ensiling.

"The initial costs for the steam equipment, however, would be sizable. Its use would be limited to large-scale operators, although with treatment of large quantities the treatment, however, would be sizable. Its use would be limited to large-scale operators, although with treatment of large quantities the treatment cost could probably be held within a practical range."

How to Handle Those High Priced Feeders

AMES — With thousands of high-priced feeder cattle entering Iowa feedlots daily, an Iowa State University extension livestock specialist reminds cattlemen of two essentials for new feeder cattle. Mitch Greasler says these essentials are first, rest, and second, some concentrates in their feed.

Do not handle cattle on arrival, Geasler recommends. Let them have access to water and hay for 12 hours.

After 12 hours, offer the new cattle some concentrates . . . about ½ per cent of their body weight per day. For a 500-pound calf, this would amount to 2½ pounds of ground corn or whole oats daily. Mixing the concentrate with oats or silage will prevent overeating by individual animals.

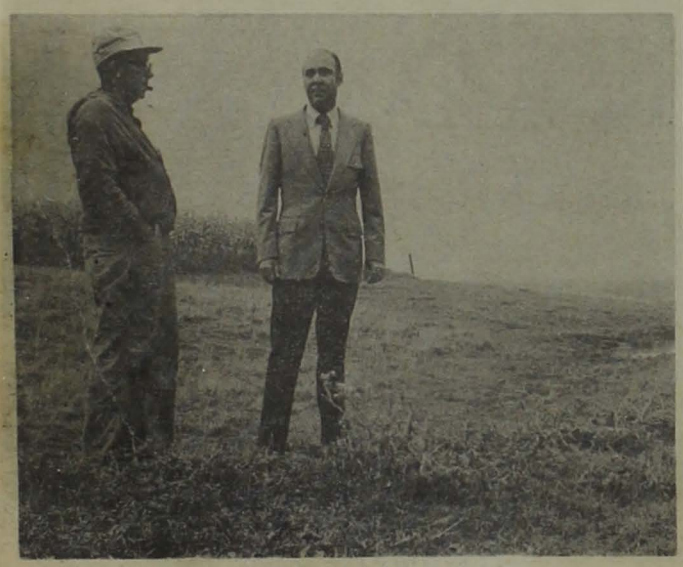
New feeder cattle should also receive supplemental protein, vitamins and minerals, Geasler points out. At the start, supplement should contain natural protein, not urea.

For most Iowa rations, cattle must weigh 550-600 pounds and be "on feed" before they are consuming enough energy to metabolize urea added to the ration. Until that time, supplements used should contain natural protein.

Cattle tend to lose more than normal amounts of potassium, magnesium and chlorides (also referred to as electrolytes) during shipping. It's essential to get these minerals back into cattle, Geasler said. Vitamin A is the most important vitamin. An intake of 40,000 to 50,000 international units per head per day is desirable for five to seven days.

Commercial feed companies have available "stress" or "conditioner" supplements that contain high levels of minerals, vitamins and antibiotics.

Cattlemen should make every effort to see that each animal eats every day. To insure that feed is fresh, feed more than once a day. Make sure cattle have plenty of bunk space, and if calves are small, that they can reach into the bunks. Clean, fresh water at all times is important.



Crops Replace Wasteland

Basin terraces protect the slope, weed trees and brush have been removed and new cropland developed on Walter Hoppe's farm at Correctionville, Iowa. Hoppe and Neil Helvig, Sioux City Chamber member, look over the scene.

Living Trees Add to Deck Enjoyment

Patio enjoyment blooms in the shade when a western wood deck is added to a yard with established trees.

Air and moisture needed for healthy roots are not cut off by spaced boards so chief concern is to fit trunks closely without chafing. At ground level, small clearance is needed but a raised deck requires leeway for swaying trunks.

Wrap-around benches or a floating collar of deck boards are effective and attractive safety measures to block a sizable opening.

★ Crop

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winter wheat in the United States."

Disease is taking some toll in Nebraska corn fields. However, yields are expected to be at record levels and total production high. Dr. M. G. Boosalis, Chairman of the University's Plant Pathology Department, said in the irrigated areas of the state, stalk rot of corn is infesting as much as 40 to 50 per cent of the plant population in individual fields. "The disease will cut yields from five to 20 per cent," he said, "but this is difficult to estimate closely. Some varieties are much more susceptible to talk rot than others in years of weather stress."

Bob Roselle, NU Extension entomologist, said corn borers have not reduced yields in Nebraska significantly, according to surveys made thus far. Western corn rootworms population was high this year, and the state probably can expect a high rootworm population again next year.

Hilltop Points Now Smooth

It looks somewhat smooth now, but there was 20 feet or more of soil coming to a point on this hilltop on the John Heilman farm, Ida Grove. Machinery smoothed it down; it will be put into grass now and be productive for grazing.

Pushup Terraces on Sharp Slope

Slopes are steep on Heilman's farm. Terraces shown here hold water, protect bottomland. Idle acre Crops occupy land where pushup terraces were recently installed.

'More Acres at Home'

Area Winning Conservation farmer John Heilman, Ida Grove, Iowa, has contoured, terraced, reclaimed acres on his home farm, "instead of buying another farm."

★ Conservation

Continued from Page 2

braska and South Dakota will be visited this month by the Journal and representatives of the Chamber's Agricultural committee. Culmination of the 1972 program will be an awards banquet Thursday, Nov. 16 at the Sioux City Municipal auditorium when some 200 conservation farmers and their wives will be cited. They will be joined by several hundred Sioux City business people who host the affair.

It Pays Off

The Storms, who operate a quarter section, plus working with Alvin's brother on 120 acres, are thorough conservationists. "Our land isn't rough, but we contour and terrace on our 3 per cent slopes. It's not as nice as farming straight, but it pays off," Alvin said. He has a hog operation, some 500 head a year, just turned out 50-bushel soybeans and was ready to go into the corn harvest. Last year's corn went 120 bushels. "This year's crop looks even better," he added.

Another O'Brien County farmer we visited was Harold Russell, who operates a half-section near Granville. Russell has been six years on the unit and it was a straight-row farm before. He joined the soil district activities, initiated contouring and protected 120 acres with terraces.

"This isn't steep land," he pointed out, "but the slopes are long and when the water gets running, washing and soil loss result."

"My father-in-law thought I was crazy, of course, for terracing and countouring," Russell laughed. "But now, he thinks it is really OK." Russell raises around 1,000 head of hogs a year and has just recently gone into the cow-calf business. He has 5 stock cows, all kinds, using a Charolais bull to produce crossbred calves. He has rented pasture for the cows, and uses corn stalks and fall government acres for grazing. Last year's corn went 130 bushels — he expects just as good, or better, this fall.

When we picked up District Conservationist Marvin Larson at Primghar at 8:45, a little late due to highway 75s detour slowing, I refused a coffee break, but at first stop, the Harry Jalas farm, Sutherland, we were waved in for coffee and some calorie-rich pastries.

At the kitchen table, Area Winning Harry and his wife told of their third-generation farming of the 320 acres. German-born grand-dad homesteaded, bought an additional quarter for $9 an acre. Harry and his father were both born in the present farm home — much remodeled and modernized.

First Co-Op Structure

Harry started contouring in 1963, co-operated with the county in 1965 on a road to build a first dual-purpose roadway and water structure which created a backyard pond. Jalas has 80 acres of contouring and 75 acres contoured; "They mean more work but I'm satisfied with them."

This year's soybean crop is averaging 51 bushels per acres.

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Sioux Cityan Visits

Sioux City businessman Stans Swanson (left) visits Harry Jalas, Sutherland, Iowa farmer and Area Winning conservationists. Chamber of Commerce Ag committee members are in their 26th year of visiting and congratulating Siouxland farmers who have won honors in the Program for Permanent Agriculture.

Knob Hills Go 100 Bushels

Knobs of hills that were re-worked have been put back into production. Neil Helvig, Sioux City; Don Kauffman, SCS, Ida Grove; and John Heilman, Ida Grove farmer, stand in a corn field similarly treated by Heilman's father-in-law. Cow manure, plus commercial fertilizer, has restored fertility; corn is going over 100 bushels.

Conservation Farm Pond

Bass and catfish inhabit this farm pond, one of two Walter Hoppe has on his 240-acre Ida County farm. Gullied areas have been controlled, ditches filled, a Creek straightened. Twelve new crop acres have been gained.

Terraced, Productive Pastures

Spraying for weeds, use of 200 pounds of N-P-K per acre has built pasture productivity for Walter Hoppe, Correctionville, Iowa farmer. He's shown with Neil Helvig, Sioux City Chamber Ag committee member on terraced pasture land.

★ Conservation

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He milks 14 cows, raises 150 hogs, and has 56 beef stock cows which he plans to increase. Good soil stewardship will see the Jalas farm passed on in good shape to another generation.

Tore Down Peaks

Three topnotch conservation farmers in the Ida County soil conservation district captured Area honors this year in Sioux City's Permanent Agriculture program.

Chamber ag committee member Neil Helvig, District Conservationist Don Kauffman, Ida Grove, and I maneuvered the little falcon over a half-section owned by John Heilman, Ida Grove. Heilman bought the place nine years ago and right away started terracing — pushing up 6 miles of parallel ridges. The backslopes are steep, too steep to farm, so he's seeding them down, " a lot of work to get grass started." He cleared brushy trees in gullies, tiled swampy endings, tore off hilltops.

We drove to the high spots atop the ridgeland. "These hilltops used to come to peaks," he said. "We cut them down, smoothed it out, used the dirt to build the pushup terraces you see below."

Heilman, who has been milking 100 cows, said he used cow manure, plus fertilizer to "bring back the fertility of the terrace channels and the scraped-off hills."

His father-in-law did the same thing not far away on another farm. "His corn, and mine is doing good — it will run 100 bushels."

Summing it up, Heilman explains his conservation work by saying: "It cost money, yes. Instead of buying another farm to raise more, I just reclaimed acres here on my own place."

More Beef Cows

Carl Huth, Jr., at Cushing, also farms a half-section and we toured his unit in our flying bird. "It was straight - rows when I came," Area Winning conservation farmer Huth said. Since takeover he has built 12 miles of broadbase, parallel terraces. "I like them," he stated. Huth is chairman of the Bitter Creek watershed area in which his farm lies. And he's waiting for the overall work to start, wrich will mean gully control and structure work on his farm, complemesing his hpland treatment.

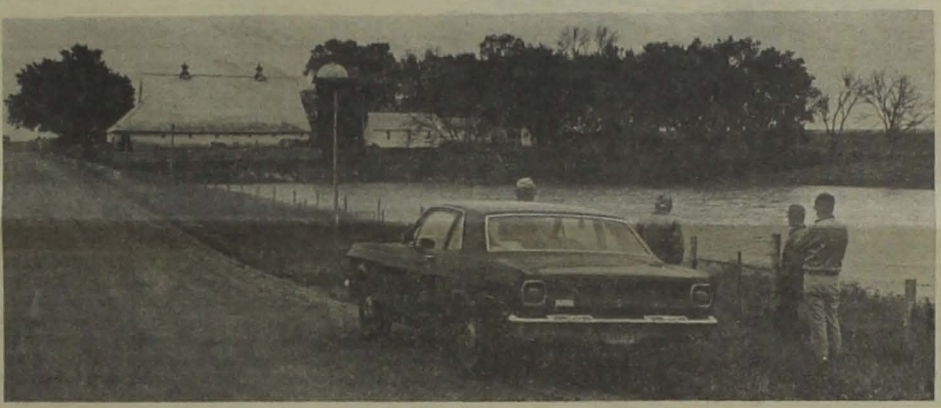
Huth practices a minimum tillage program, using a chisel plow, followed directly with a planter, herbicides and minimum cultivation. Like many other Western Iowans he is swinging into a cow - calf operation; at present he has 30 beef cows and 16 heifers. They are Angus, crossed with a Hereford bull. "After the watershed is completed, I plan on more rotated pasture and an increase in the cow herd," he said.

Walter Hoppe, Correctionville, Ida soil district Area Winner, had a job on his hands back in 1954. "This 240-acre farm couldn't be rented. It was covered with weeds, low productivity, one field wasn't even picked. But I bought it."

"The beef cows, and I, got it back in shape," Hoppe told us. "It all boils down to soil management and a lot of hard work."

When Hoppe got the weeds cut down he discovered a building he didn't know was there. He started filling and shaping gullies so they could be crossed with machinery, he put in terraces, built two dams for ponds in the deep ravines.

He has 40 head of beef cows, using permanent and rotated pastures and he's aiming at seeding down the whole farm with a larger cow herd. He handles his pastures today for maximum production, spraying for weeds and putting down 200 pounds of N-P-K. Hoppe has gained acres of land, taking out weed trees, straightening channels, putting in protective basin terraces on steep slopes to make more pasture and crop acres.



New Road Structure Creates Pond

This was a 'first' in O'Brien County — co-operation between a farmer, the SCS, and the county highway department in a structure. Harry Jalas, Sutherland, Iowa farmer, provided land, a former bridge was replaced with a road-dam and drop tube and a pond was formed adjacent to the farmstead. The dip in the road (foreground) is the emergency spillway. Many such co-op structures are now being built, to replace formerly costly highway bridges, always subject to erosion and washout. Jalas is an Area Winner in the 1972 Journal-Chamber conservation program.

Charm Unrelated to Garden's Size

Bigger is not neccessarily better, as proved by small outdoor living areas that add charm to modest yards.

Stepped planting beds and board-faced planter lift the eye up and out of a confined garden space, and the effect is enhanced with a fence or screen of narrow vertical boards.

Shrubbery surrounding simple benches of 4x4-inch posts and slightly spaced 2x4-inch seating creates a mini-garden for relaxation. Western red cedar is suprior for outdoor projects.

Use SMV Sign

If you drive your farm vehicles on the road, use the Slow Moving Vehicle emblem for your protection — day or night. Studies show the majority of farm vehicle accidents occur during daylight hours on dry, open highway.

3 Per Cent Slopes, But They're Terraced

Hill-land farmers look at O'Brien County and think it's flat and doesn't need conservation. But Area-Winning conservation farmers such as Alvin Storm, Archer, Iowa, say otherwise. Their 3 per cent slopes are long and subject to much washing if not controlled. Alvin Storm (left) and SCS conservationist Marvin Larson, Primghar, stand in a beautiful grassed waterway on the slightly rolling quarter-section.

Iowans Throwing Away $80 Million:

Make or Lose—on the Bean Harvest

AMES — Soybean harvest is already under way in some parts of Iowa, but it still is too early to be certain about quality of grain that will be harvested. Much will depend on weather conditions during the next few weeks, reports Leroy Everson, Extension Botanist at Iowa State University.

Since most of Iowa has received plenty of rain, many fields are weedy and soybean plants are on the ground in some fields. "If rainy weather continues throughout the harvest season, soybean combiners will have a tough job," Everson said.

If weather becomes dry, farmers can expect seed damage from combining because soybean seed is easily damaged when too dry. Whether soybean seed is harvested for planting, for processing into meal, or for export — seed damage during combining means yield losses. A combine operator can't do anything about the weather, but he can make adjustments to reduce seed damage and yield loss, according to Everson.

An Iowa State study shows average soybean loss from combining averages about 4 bushels per acre. With 6.1 million acres of soybeans to be harvested in Iowa this year, this is a loss of about 24.5 million bushels worth $80 million.

A farmer with 100 acres of soybeans can expect to lose beans worth about $1,300.

Dale Hull, extension agricultural engineer, offers these suggestions to help insure higher seed quality and to prevent loss of seed in the field:

1. Combine before beans become too dry. A moisture content of about 13 per cent is best. Beans below 12 per cent moisture are susceptible to damage. Conversely, beans with moisture content over 14 per cent will cause storage problems. Most elevators have a moisture tester and will help you check a sample of your corn.

2. Keep the cutter bar close to the ground to get more soybeans. This means a low ground speed. The faster you travel in the field, the higher the cutter bar must operate to prevent gouging into the ground. Modern combines use "feelers" under the cutter bar to provide automatic cutter bar height control. With this device, it is possible to cut close to the ground without danger of damaging the cutter bar.

3. A ground speed of 3 miles per hour over the ground is fast enough.

4. Reduce cylinder speed to 400 to 650 revolutions per minute. Most combines now have a quick cylinder speed adjustment. Mechanical impact on the beans is less at lower cylinder speeds and you'll have less cracking of beans.

5. Remove some cylinder bars, especially if the beans are very dry. Some combines have special blank concaves that may be used for soybeans. "Wide spaced" open gates are widely used for soybeans and corn.

6. Refer to the manufacturer's instruction book for cylinder-to-concave-bar clearance. Remember, it's better to close down concave clearance than to speed up the cylinder to get better threshing of beans from the pods.

7. Reel speed should be 1¼ to 1½ times the ground speed of the combine.

If the beans are dry and the percentage of beans showing some damage approaches 5 per cent — you have an indication that either the cylinder clearance is too small, the cylinder speed is too high, or there may be too many concave bars.

To check on soybean seed loss from combining, 4 seeds per square foot of ground (36 seeds per square yard) is 1 bushel loss per acre. If you find 16 seeds per square foot of ground, you are losing 4 bushels of soybeans per acre worth about $13.

From The Kitchen Window

by MIRIAM

With one of my sons home for a few weeks and the other here for a short week-end visit, there has been strong motivation to get out the tried-and-true recipes used in our kitchen when the boys were growing up. K. says that the Dutch volunteers he was friendly with in Africa had read some American recipes and thought it odd that they called for various kinds of commercial "mixes". It would take the fun out of cooking, they said, to use so many short-cuts. The "American Apple Pies" I recently baked were not made from any prepared mixes, but step by step as I first learned:

American Apple Pie

1½ cups sifted flour
½ teaspoon salt
½ cup lard
4 to 5 tablespoons ice water

It's easier to cut the lard into chunks first, then use the pastry blender to cut it more finely into the sifted flour and salt mixture. The ice water is added in very small amounts, mixed in with a fork, until the dough is dampened just enough to "clean" from the sides of the bowl easily. (This recipe makes only enough crust for one 9-inch double-crust pie. Why not increase it, and put a pie or two into the home freezer while ingredients and utensils are assembled?)

For each 9-inch pie, enough sliced apples can be measured in the pie-pan. The amount of sugar should be adjusted according to tartness of the apples.

Mix with the apples:
¾ to 1 cup sugar
2 tablespoons flour
¼ teaspoon salt
1 teaspoon cinnamon
¼ teaspoon nutmeg

Enough butter to "dot" the apples after they are settled in the bottom crust. Adjust top crust, making a few slashes for escaping steam. Bake the pies at 400 degrees for 10 minutes, then at reduced temperature of 350 until apples are tender, about 35 minutes.

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Another family favorite baked for visiting sons was a batch of butterscotch refrigerator rolls. It was good to discover I hadn't forgotten how to make them.

Butterscotch Refrigerator Rolls

1½ cups boiling water poured over
½ cup sugar
6 tablespoons shortening
2 teaspoons salt

After cooling this mixture to lukewarm add:
⅔ cup instant dry milk
2 tablespoons granulated yeast softened in
½ cup lukewarm water
2 eggs, slightly beaten
6½ to 7 cups sifted flour

Add half of the flour, and beat thoroughly to develop gluten. Stir in remaining flour, scraping down sides of bowl with rubber scraper, then greasing sides of the bowl lightly. Cover dough and let rise until doubled in bulk. Punch down the dough, and store covered in the refrigerator until needed.

About 2 hours before you plan to bake, roll the dough out as for cinnamon rolls, ¼ inch thick. Brush with melted butter or cooking oil, and sprinkle with ½ cup brown sugar, 2 teaspoons cinnamon, and walnut or pecan pieces if desired. In each of 2 greased 13x9x2 inch pans combine 1 cup brown sugar, 2 tablespoons light corn syrup, and 1 tablespoon cooking oil or melted butter. Set the pans in 150 degree oven to warm for a few minutes and liquefy the butterscotch mixture. Place the rolls, cut side down, in the pans, making 32 uniform-sized rolls. Cover; let rise until doubled in bulk. Since the pans have been heated, rolls may rise faster than usual. Bake in moderate oven 20 minutes. Turn out onto waxed paper, and cool, bottom side up.

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As some of our readers know, recipes are always included in column copy with fear and trembling, lest errors may creep in. Here's hoping that these two will give you all the correct proportions!

U.S. Competition:

Australia Has a 'Beef Explosion'

WASHINGTON (AP) — Changes in Australian agriculture eventually may result in more competitive problems for U.S. grain and livestock producers.

The Agriculture Department's Foreign Agricultural Service said beef production in Australia is continuing to soar as many producers shift from sheep to cattle.

Beef production was up more than 10 per cent the past season to a record 1,145,000 tons. "Further boosts are possible this year 1972-73 due to cattle numbers increasing faster than meat production," the FAS said in a report.

Also, the report showed, Australia produced a record feed grain crop the past year as the government imposed tighter acreage restrictions on wheat.

Barley output rose 32 per cent, but sorghum grain production declined. Corn, a relatively minor crop, also increased.

The rise in Australian beef production and the indication that foundation herds are expanding mean that Australia may be looking ahead to an even greater share of the U.S. import market.

Beef imports, low-grade meat used mainly for manufactured food such as hamburger, have been held down until recently under a 1964 quota law. But President Nixon last June 26 suspended "voluntary restraint" arrangements with foreign countries for the remainder of the year in an effort to head off rising retail prices.

Australia and a dozen other countries have increased meat shipments to the U.S. market as a result. By August the total was up 12 per cent from a year earlier.

There has been no official word that the suspension will continue into 1973, but cattle producer groups have been led to understand the quota formula will be restored.

But the cattle explosion in Australia may be a signal that the country at least will seek a larger "voluntary restraint" level for the American market when the curbs are reimposed.

Australia and neighboring New Zealand historically provide about 70 per cent of the fresh, chilled and frozen beef imported here.

The increase in feed grain production also may be worrisome later on to U.S. producers. Japan is a big buyer of Australian feed grain and also is a major market for U.S. farmers.

Thus, if Australia can maintain its supply, American producers might find some of their dependable exports reduced as the Japanese turn more to the competition.

Three Crops of Beans

A three-crop soybean program is being developed in Puerto Rico by the Agricultural Research Service of U.S.D.A. Their tests have shown that two crops are possible, each yielding 40 to 60 bushels per acre, between mid-February and mid-September. A third crop of soybeans with comparable yields can also be grown during the winter months with the use of heavy plant populations.

A.R.S. scientists believe their data show the existence of great potential for high yields of soybeans under tropical conditions. In one year's time it is possible to produce more than 150 bushels per acre.

At present, Puerto Rico imports all of the soybeans it consumes.

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Help Wildlife, Leave a Little Cover This Fall, Says Biologist

With the arrival of fall comes harvest time and land preparation for the next spring. During a hard winter wildlife desperately need cover to survive. In the spring they need early season nesting cover. By leaving your ditches unburned and a few odd pieces of ground unplowed, you can help provide this vital cover. Help wildlife by leaving a little, says Neil Heiser, wildlife biologist, Onawa, Iowa.

Population Up

Bobwhite quail and cottontail rabbit populations are apparently better than average this year. July rabbit and quail counts conducted by Conservation Commission personnel in Western Iowa indicate populations are up 35 and 10 per cent respectively. Hunters, remember that the rabbit season is presently open and runs until Feb. 28. Quail season opens Oct. 28 and lasts until Jan. 31.

Get Duck Stamps

This year, for the first time, Iowa waterfowl hunters will be required to have in possession a state waterfowl stamp in addition to the Federal duck stamp. This state stamp costs $1.00 and can be purchased at the county recorder's office or wherever hunting licenses are sold. Unlike the Federal stamp, all individuals who hunt waterfowl (regardless of age) must have the state stamp. It must also be signed across its face.

Money from both state and Federal stamps goes toward the purchase and management of wetlands and marshes vitally needed by waterfowl and other wildlife species. Thus waterfowl hunters preserve their sport, and preserve waterfowl for present and future generations to enjoy.

★ Average

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Further, those costs have continued to rise this year and by mid-September were 24 per cent higher than the 1967 base, according to USDA.

As a footnote, however, the department says prices farmers pay for machinery, feed and all other production items have risen less rapidly than some other important costs.

Compared with the 15 per cent rise from 1967 last year in prices of production items, the 1971 index for all commodities, services, interest taxes and labor taxes were up 20 per cent.

Broken down further, family living expenses for farmers — reflecting higher prices for all consumers — were up 19 per cent last year from 1967.

Tax rates, however, showed the sharpest gains among the categories. Based on taxes paid per acre, the rates last year were 44 per cent higher than in 1967.

Interest rates on borrowed money also have risen. Translated into a per-acre basis, interest averaged 38 per cent higher in 1971 than four years earlier.

Second Patio

An added patio for child's play set apart by a wood screen keeps clutter clear of an adult deck. Douglas fir stands up to youngsters' activities, weathers nicely without finish.