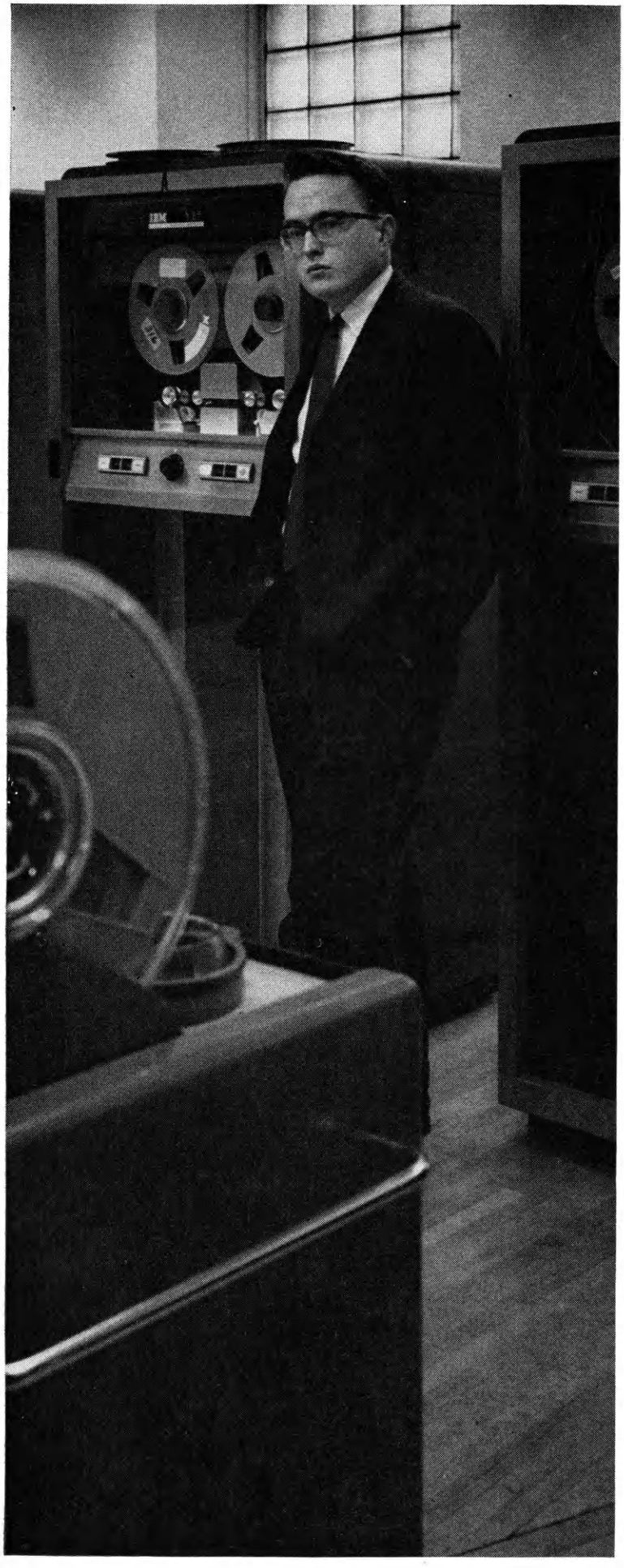
KANSAS STATE UNIVERSITY

AG STUDENT

OCTOBER 1962

Soybean Future Bright . . . page 8



A short talk about a lifetime career

by Jim Bryce

"Here in the research department of American Oil you're given an opportunity to work in many phases of petroleum engineering. As a design-economics engineer, I'm investigating the incentives for proposed new technical ventures. These projects provide a good background for greater research department responsibilities and/or for opportunities in marketing, production, or general management."

Jim Bryce has a lot going for him: a Bachelor of Chemical Engineering degree from Cornell, an excellent start on his Masters degree in Business Administration in Finance at Northwestern, and a solid career opportunity at American Oil. Right now, Jim's MBA work at Northwestern is being paid for (75%) by American Oil on their Advanced Education Plan.

Scores of ambitious and talented young men like Jim Bryce have been attracted to American Oil because of the wide range of research opportunities offered. American Oil is particularly interested in: Chemists—analytical, electrochemical, inorganic, physical, polymer, organic, and agricultural; Engineers—chemical, mechanical, metallurgical, and plastics; Masters in Business Administration with an engineering (preferably chemical) or science background; Mathematicians; Physicists.

For further information about a challenging career for you in the Research and Development Department of American Oil Company, write to: D. G. Schroeter, American Oil Company, P. O. Box 431, Whiting, Indiana.

IN ADDITION TO FAR-REACHING PROGRAMS INVOLVING FUELS, LUBRICANTS AND PETROCHEMICALS, AMERICAN OIL AND ITS AFFILIATE, AMOCO CHEMICALS, ARE ENGAGED IN SUCH DIVERSIFIED RESEARCH AND DEVELOPMENT PROJECTS AS:

New and unusual polymers and plastics • Organic ions under electron impact • Radiation-induced reactions • Physiochemical nature of catalysts • Fuel cells • Novel separations by gas chromatography • Application of computers to complex technical problems • Synthesis and potential applications for aromatic acids • Combustion phenomena • Solid propellants for use with missiles • Design and economics: new uses for present products, new products, new processes • Corrosion mechanisms • Development of new types of surface coatings.

STANDARD

STANDARD OIL DIVISION
AMERICAN OIL COMPANY

Dr. Duane Acker
Director, School of Agriculture

From the Dean's Office

AS A NEW member of the School of Agriculture team, I respond enthusiastically to your welcome in last May's issue of the Agricultural Student.

I am proud to be associated with a School of Agriculture that has an excellent reputation, an appropriately broad scope of activity (from our milling to livestock science to landscape architecture), a capable faculty, and students with high potential.

You probably don't realize just how high your potential is. Our job, and that of the faculty, is to help you approach your potential, to help you use your talents—academic and other—most effectively.

Among your predecessors in the School of Agriculture at Kansas State are the president of the world's largest tractor manufacturing company, a vice-president of one of the world's largest feed manufacturing and oilmeal processing companies, many highly respected PhD's on college faculties, an editor of one of the country's top farm magazines, most of the agricultural leaders of Kansas, and other responsible and respected professional people.

These men approached their potentials. They mobilized their abilities and competed effectively in their respective professions.

Professional Agriculture is dynamic. It is respectable. It is competitive, demanding, and—rewarding. Ambitious and capable young men and women in professional agriculture have good futures. Challenging jobs, good salaries, opportunities for advancement, and real security are available for those who are determined to succeed.

To date I have met many of you individually—in class, in meetings, in my office, and by correspondence. My satisfaction, and that of my associates, will come with your college and post-college success. We are available to help you build the academic foundation you want.

Duane Acker

Across the Editor's Desk

GREETINGS:

We're glad you're taking this opportunity—whether it be between classes, on a study break, or after a hard day's work—to look between the cover of your magazine. Yes, we said YOUR magazine because the Ag Student is written with you in mind.

We hope you find articles inside that interest you. And, we hope they will help you in some way.

This is the 100th year for Kansas State University, and the 39th for the Ag Student magazine. Both have long-standing policies and traditions. Both try to operate in the best interests of those concerned. We on the Ag Student are concerned with you, our readers, and want to serve you in the best way we can. If you have any suggestions on how we may do this—or any criticisms of our policies—let us hear them. We welcome new ideas!

On behalf of the Ag Student staff, may your years at KSU be memorable ones—in scholastic attainment and personal fulfillment.

Linda Kernohan

KANSAS STATE UNIVERSITY

AG STUDENT

Vol. XXXIX October 1962 No. 1

PHOTO CREDITS: Rick Solberg, 10, 11, 13 and Cover; Department of Agronomy, 8, 9; Meyer Roth, 14; Associated Advertising Agency, Inc., 6; Hesston Manufacturing Co., Inc., 7.

EDITOR
Linda Kernohan
ASSOCIATE EDITOR
Neil Dowlin
ASSISTANT EDITOR
Gordon Bieberle
PHOTOGRAPHER
Rick Solberg
FACULTY ADVISER
Lowell Brandner
BUSINESS MANAGER
Joe Reed

CIRCULATION
Stanley Stout Patrick Koons
George Teagarden

BUSINESS STAFF
John Divine Larry Scott
Larry Woodson Henry Payne
Gerald Wagner Gary Scott

STAFF WRITERS
Sharon Stauffer Thayne Cozart
Paul Vincent Tom Kay
Andrea Emmot Loren Zabel
Cindy Winters

The Ag Student Magazine is written and edited by students interested in agricultural journalism, and is published by the Agricultural Association of Kansas State University of Agriculture and Applied Science, Manhattan, Kansas, in October, December, February, March, April, and May. Subscription rates $1.50 a year; 2 years, $2; single copies by mail, 30c, at office 20c.

Second class postage paid at Manhattan, Kansas.

100 YEARS OF SERVICE TO KANSAS,
THE NATION AND THE WORLD

THE CENTENNIAL MEDALLION

The above designs are drawings of Kansas State University's bronze centennial medallion issued to commemorate the 100th anniversary of its founding on February 16, 1863. The design on the front side of the medallion shows the Anderson Hall tower and part of the building itself. The reverse side portrays education at the University, using three symbols representing the past, present and future.

Education is specifically symbolized through the strength of the book, the base of all the other symbols, held by a feminine hand. Professor Oscar V. Larmer, the designer, chose the feminine hand because it reflects, through education and culture, that strength is possible without the more crude, basic desires which the shorter, heavier male hand suggests. The past is illustrated by the Parthenon, symbolizing the accepted intellectual, academic and classical tradition which is our heritage, and by the vine, representing the emotional or natural process of growth, life and fertility. Symbolizing the present are pieces of laboratory equipment, while rockets and pressure domes are used to symbolize the future. Heads of wheat form the decorative border.

623 Kansas Schools To Receive Ag Mag

Libraries of Kansas high schools—all 623 of them—are receiving the Ag Student magazine for the second consecutive year. The magazine is sent to them by Kansas State University in hopes that you students will find valuable educational matter related to your farm business and agricultural interests. An article might open an avenue to interests that will determine your careers. Also, the members of the staff feel it's their duty to acquaint you with the agricultural industry of this nation.

The Ag Student is operated and written entirely by students like you who are interested in agricultural publication work—business and writing. Professionals in the agricultural magazine business have praised the Ag Student for its continued excellence and improved presentation of agriculturally-oriented information. The staff wants to earn your praise too.

We, the staff members, also undertake to recommend ways of improving family and home living in our home economics articles. Don't let that frighten you. The home and family are seldom separated from the farm business. Rather, they're the hub of the business.

We'll be looking forward to seeing you at K-State and hoping you will want to take an active part on the Ag Student magazine.

Neil Dowlin

K-Stater Elected To National Office

Lawrence Schrader has been elected president of the student section of the American Society of Agronomy. He is a senior in agriculture from Lancaster.

Schrader is the first Kansas State University student ever to hold a national office in that organization.

President of K-State's Klod and Kernel club for the past two years, Schrader also won first place in the national speech contest at the annual August meeting held at Ithaca, N.Y.

He was also a delegate to the national meeting in 1960.

With New Hay Equipment

Save Time, Cut Losses

by Paul Vincent

MODERN hay equipment provides a threefold advantage: you save man-hours by combining cutting, raking, and conditioning operations; you increase capacity by handling more hay per day; you cut down weather losses by cutting, baling, and barning on the same day.

Alfalfa is often a difficult crop to harvest because its leaves and stems dry at different rates. Since the leaves of the alfalfa plant contain up to 70 per cent of the protein and 90 per cent of the carotene, a harvesting system should prevent their loss.

Over-all moisture content of the alfalfa must be reduced to 20-25 per cent for safe storage. However, by the time the moisture content of the stems is lowered to 27-33 per cent the moisture content of the leaves may be as low as 12-14 per cent. When drying hay is handled mechanically, as with a side-delivery rake, leaf loss starts by the time leaf moisture content has been reduced to about 30 per cent.

The problem is to speed up the drying rate of the stems to match or approach the drying rate of the leaves. One way of doing this is to rupture the stem. This is called conditioning. In general, the term "hay conditioning" means some form of mechanical treatment which will speed up the rate of natural field drying.

In the summer of 1961 a K-State research team tested four hay conditioning machines:

1. A crusher with one smooth steel roll and a spiral-grooved rubber roll.
2. A crimper with corrugated steel rolls.
3. A 12-foot trail-behind twin-rotor, rotary mower which cut, lacerated and windrowed the hay all in one operation.
4. A 12-foot self-propelled swather-windrower with a crimper-crusher conditioning attachment.

Tests were made on first, third, and fourth cuttings. The drying times and man-hours of work were recorded. Chemical analyses were made to determine the protein, carotene, and fiber contents of the hay conditioned by each machine. The hay was baled and fed last winter to four matched lots of 400-pound Hereford heifers.

This 12-foot rotary mower cuts, lacerates and windrows hay—all in one field operation.

Feeding Results Similar

Each lot had 10 animals and they were fed the fourth-cutting alfalfa free choice. A grain supplement of 3.4 pounds of sorghum per head was fed daily. The feeding results showed a close correlation between the protein contents of the hay samples and the gains of the animals. However, the gains did not vary by any large amount between the test lots. This seems to indicate that each of the machines was sufficient in this respect.

This summer the program was continued. However, instead of a crimper as listed in number two above, a wafering machine was used. The other three machines, the crusher, the rotary mower and the swather-windrower, were tested in the same manner. With interest in wafering machines increasing each year, it was decided to include this process in the tests this summer.

Only the second cutting was used

This self-propelled swather-windrower, equipped with a crimper-crusher conditioning attachment, has a capacity of 4.5 acres per hour.

this year and each machine processed eight tons of alfalfa. This hay will be fed, as it was last year, to four matched lots of cattle to determine the comparative feed values of the hay processed by each machine.

Conditioner Reduces Curing Time

The most important advantage to be gained from the use of a hay conditioner is reduced curing time. The crushed and/or crimped hay can be baled the same day of cutting under good drying conditions. The windrowed hay dried more slowly than the other treatments: there was little difference in the rate of drying of the two windrowers.

Eliminating the over night exposure and weather risk is an important advantage. If a barn drying system is used, hay can be placed in storage in conditioned form at about 40 per cent moisture. With reasonable curing conditions, the use of a drying system and a hay conditioner would make alfalfa harvesting a one-day job and eliminate danger of loss because of weather.

The economic advantages that the hay conditioners offer concern not only drying time and leaf loss, but man-hours saved. Windrowers offer the greatest saving of man - hours. The seven-foot mower and the crimper and crusher have a capacity of about 2.5 acres per hour. A side delivery rake has a capacity of 2.9 acres per hour. The self-propelled windrower and the rotary cutter and windrower both have a capacity of 4.5 acres per hour.

These figures indicate that ten man-hours with one of the windrowers will put about 45 acres in the windrow. The same amount of labor with the mow and crush with a separate raking method will put only about 13.5 acres in the windrow. The slower drying rate of the hay cut with the windrowers is partially offset by the fact that the hay is cut faster and starts the drying process earlier in the day.

Cutter Combines Field Operations

The rotary cutter is fairly new in the field of hay processing. Although it was designed originally for such uses as shredding stalks and clearing weeds and brush from pastures, it does a good job of mowing, rupturing, and windrowing all in one quick operation—with the tractor often operating in road gear.

In general, the windrowers have the advantage of combining mowing and raking operations in a manner which seems to minimize leaf loss. This factor plus a 12- to 14-foot swath indicates an economic advantage which should be investigated.

Costs Favor Rotary Cutter

The costs per acre of mowing, crushing, and raking are compared to the costs of windrowing with a self-propelled and a rotary windrower in this chart:

Acres	Mow, crush and rake	Self-propelled windrower	Rotary cut and windrowed
100	$6.00	$7.75	$5.00
200	$4.15	$4.65	$2.75
400	$3.30	$2.45	$1.80
1000	$2.75	$1.25	$1.15

These tests are part of a long-term program designed to establish some working statistics on hay processing and feeding problems. These first tests indicate certain trends which must be checked over and over again before dependable statements can be issued. However, these first two tests seem to favor the rotary cutter and the self-propelled swather-windrower as labor-saving alfalfa hay equipment.

Increase Farm Profits, Utilize Unproductive Land—

Raise Soybeans on Allotm

by Gordon Bieberle

"SHOULD I raise soybeans? Would the project be too complicated for me and my present farm operation? Would it interfere with my raising wheat?"

Your decision to raise soybeans may present the opportunity you've been looking for to convert unproductive allotment acres into crop-bearing, cash-earning land. Or maybe you could even increase the output of your present wheat land by raising two crops a year on it—soybeans and wheat.

You've been hesitant about raising soybeans because you're not sure about what's involved? Dr. Ernest L. Mader, associate professor of agronomy at Kansas State University, says raising beans is similar to raising corn and sorghum.

Planting, cultivating and harvesting methods are similar to those you now use for corn and sorghum. In harvesting soybeans, however, cut them as close to the ground as possible, and at a slower pace than you cut wheat. Otherwise, part of your crop remains in the field. In fact, you would lose nearly a bushel of beans per acre for every inch above the ground you cut. For example, if you harvested soybeans four inches above the ground, you would lose nearly four bushels of beans per acre. Considering that the average 1961 loan rate in Kansas was more than $2 per bushel, you would lose more than $8 per acre.

Obviously, you would have to lower the combine cutter and run the cylinder speed slower than for cutting wheat. Soybeans break and crack much easier than wheat.

You might even need to change your combine's cylinder speed twice in one day—a faster setting in the morning and a slower speed for afternoon. Beans dry out toward afternoon.

"But it's too risky to plant soybeans and take the chance of losing the crop at harvest time."

If you're hesitant because of that, follow Mader's advice—just plant a few acres the first year so you can become familiar with the practices and problems of raising soybeans. That will give you necessary experience and self-confidence. In following years, you may want to increase your acreage, or even try raising soybeans as a second crop after your early matured wheat, planting them in late June or at least by July 1.

"What else besides harvest methods might affect the yield of my soybean crop?"

Yield Depends on Weather

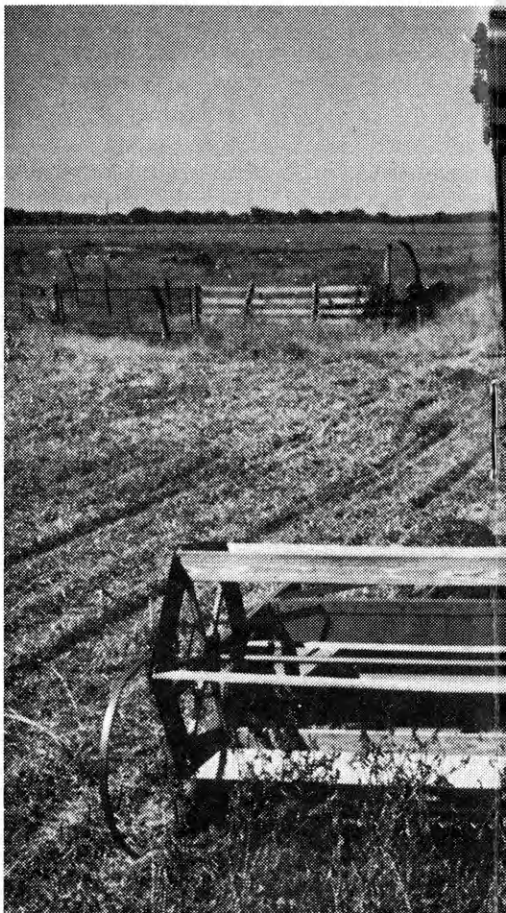
Mader explained that climatic conditions and soil fertility play important roles in determining the soybean yield. Hot, dry weather definitely causes a yield decrease. For instance, production per acre in 1961 was more than 21 bushels. This year's estimate is three bushels per acre less because of hot August weather.

On your farm, you might increase yield of soybeans by five or six bushels per acre by increasing the fertility level of the soil. That was proven on an experimental plot in southeast Kansas, where production was increased from about 20 bushels per acre to nearly 30, just by building up soil fertility level through fertilization and the rotation of crops.

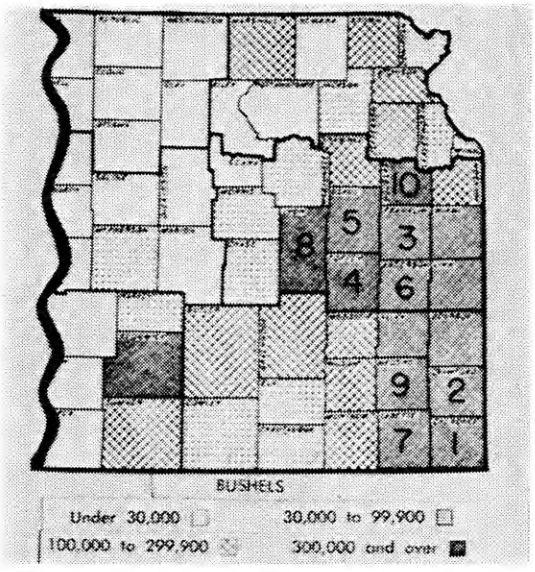
"If I decided to raise soybeans, would it be profitable? What varieties would be best? Would I have to apply fertilizer before planting soybeans?"

Yes, it probably would be profitable for you to grow soybeans. With the average yield per acre from 1957 through 1961 being about 21 bushels, which is slightly under the yield per acre for wheat over that period, and with the price per bushel being $2.18 in 1962, as listed by the Kansas ASC (Agriculture Stabilization Conservation) office, the crop would

Combines and row crop machines need little alt



ent Acres



be comparable to wheat in terms of gross revenue.

Most of the soil in eastern Kansas needs to be fertilized before planting wheat, in order to realize maximum yield, Mader said. However, soybeans planted on most soils in eastern Kansas don't require any fertilizer prior to seeding. Therefore, cost of production would be reduced, giving you a higher net return for soybeans than for wheat.

You won't need any additional machinery for raising soybeans, either. For planting, you may use regular 40-inch row-crop planter and cultivator. (You may convert your equipment to 20-inch row machinery, and realize 10 to 15 per cent increase in yield. But, Mader cautioned, before you do this be sure you're raising enough soybeans to warrant cost of such modification.) For harvesting, you may use the combine which you use to harvest other farm crops. Besides getting extra income from actual production of soybeans, you would be getting more use from your expensive farm equipment.

Clark, Shelby and Kent varieties are best for all of eastern Kansas, and the eastern part of south central Kansas. Clark and Shelby are recommended for north central Kansas. If you farm in the western part of the state and want to try raising soybeans there, Mader suggests that you use Shelby or Clark. Although not enough experimental data have been compiled to give conclusive recommendations for western Kansas production, soybeans under irrigation at Garden City agricultural experiment station have produced as high as 50 bushels per acre at least two different times. That figure is competitive with 100 bushels of corn per acre, Mader said.

lteration for soybean production. Low conversion costs and strong demands bring profits.

Variety Characteristics Differ

Clark variety was first recommended in Kansas in 1955. It matures about eight days later than Shelby, and about eight days earlier than Kent. It has medium-sized, yellow seeds with a black hilum, and is similar to its Lincoln parent in height, growth habit and tawny hairiness. According to experiment station results, plants are erect and somewhat resistant to lodging.

Kent variety was released jointly by experiment stations in Kansas, Delaware, Maryland, Indiana and Illinois. That seed was distributed in Kansas in 1961, as a replacement for S-100. Kent excels S-100 in yield potential, lodging resistance, and oil content. The variety matures about four days earlier, and is seven inches shorter than S-100. Except for the later maturity of Kent, its agronomic characteristics are similar to Clark's in Kansas. Most important advan-

(Continued on page 12)

Not "Idle Pastime"

Play Necessary For Growing Up

by Linda Kernohan

IF YOU AREN'T a parent now, chances are you will be some day. And, have you ever considered the importance of "play" to a child?

"Go on outside and play! I'm busy now."

How many times have you ever said this, or heard it said, to a youngster, casually dismissing that activity —play—which is so important to him in growing up? "Idle pastime" is how you may label Susie's play. But play is really a worthwhile activity—Susie learns through play.

Playing on large equipment like this jungle gym helps a child develop his large muscles.

Have you ever watched a three-year-old stack blocks? One by one he puts one block on top of another. Then his tower falls. Why? The last block he put on top was too big. He is finding out that large blocks fit better on the bottom and small ones work better on top. He is learning through play.

Children Learn by Imitating

Little girls enjoy donning their mothers' old clothes and playing house with their dolls. Young boys also enjoy joining in this housekeeping experience. In this type of play, they imitate the roles of their parents, thus learning how to be future moms and dads.

Exploring, collecting, games and other favored forms of play in late childhood provide a child with much information about the world in which he lives—information that is more meaningful, having come firsthand through his own experiences. At the same time, he is learning about himself.

Play is not only educational, it is also therapeutic. Children, as well as adults, need some outlet for tensions imposed upon them by their environment and the demands of everyday life. Many of the needs and desires which cannot be met in daily life are met in play, and thus the frustrations of daily life are lessened for the child. He may not be allowed to walk around the block by himself, but he can hop on a make-believe plane in his own back yard and fly clear around the world—all by himself!

Pound Tensions Away

How many times have you seen a frustrated adult slam a door or throw something to the floor?

You've no doubt done it yourself. Provide your youngster with a pounding board; it's a perfect outlet for releasing tension.

Play is also important in the moral training of a child. He learns at home or in school that he must be fair, honest, truthful, a good sport, and self-controlled. But the enforcement of these moral standards is never so rigid as in the play group. Johnny's parents or siblings might let him get by with batting twice in a row, but he knows—or soon learns—that his playmates won't. He learns to toe the mark more quickly and more completely in play than at any other time.

Develop Large and Small Muscles

Physically, play is essential if a child is to develop his muscles properly and exercise all parts of his body. Large play equipment, such as swings, planks and sawhorses, slides, big wooden boxes, and barrels, encourages him to climb, swing, pull and slide. These activities develop his large leg, back, arm and stomach muscles. He improves his coordination. As he grows older, toys with smaller pieces help him use his fingers and small muscles. Provide him with puzzles, blocks, pounding boards, pyramid or cone block toys, and an easel for painting. These toys help him develop small muscles and good coordination, and they stimulate him to think as he solves the problems he encounters. They also provide him with something to do during quiet play periods.

Amount and type of play equipment available have a marked influence on the play life of a child. If you provide blocks, sand, or hammer and nails, the play will be primarily constructive. Dolls, dress-up clothes, household equipment, or plastic figure toys such as soldiers or horses, encourage imaginative, make-believe play. And, because Johnny's play is creative, dramatic, imitative, imaginative, and inventive, he needs equipment for all types of play—both for indoor and outdoor use.

Remember, though, that too much equipment is just as bad as too little. A limited amount of well-selected equipment encourages your child to be more resourceful in his play and to be more social. Some of the most popular toys for children are those made at home and which offer the child an opportunity to do things with the toys that are impossible with many of the ready-made ones.

Play IS Youngsters' Business

Play is such an accepted part of child life that few parents stop to consider how important its role is in the development of their child. Play actually provides a natural setting for his all-around development. It is his business and life while he's young. Don't casually dismiss it.

If you would like to make youngsters' toys (for Christmas presents, perhaps), consult Kansas State University extension bulletin, "Toys You Can Make." Complete instructions are available in this booklet. You may get it from Umberger hall on campus or from your county agent's office.

Suzy carefully places one block on top of another, learning that heavy ones put on top may cause her tower to fall over.

Barrels, planks and big boxes provide the setting for dramatic play and socialization.

Soybeans

(Continued from page 9)

tage of Kent over Clark is its resistance to frog-eye leaf spot, researchers say.

Shelby is an early-maturing variety; it was released in Kansas in 1961. Shelby usually is superior to Adams and other early-maturing varieties, and should prove valuable where wheat follows soybeans in the rotation. When planted at normal dates, Shelby should do best in northeastern and north central Kansas. Except for a maturity difference of about eight days, Shelby and Clark are nearly alike in seed and plant characteristics.

Selection of variety depends upon whether you plant soybeans following or preceding wheat, or plant them as a separate crop, said Mader. If wheat follows soybeans, choose an early-maturing variety.

"I still don't know whether raising soybeans would be wise for me. What are other Kansas farmers doing?"

Soybeans Rank Fourth as Cash Crop

"The last few years, farmers in Kansas have become exceptionally good soybean producers. We've had some extremely high yields," said Mader.

Soybeans rank fourth in the state as a cash grain crop, with wheat, grain sorghum and corn ranking higher.

"Will the market for the beans hold up?"

A partial list of uses for soybeans, compiled from industry sources, may help you to decide the answer.

Some industrial uses include fertilizer, sprays, paper coating, board coating, linoleum, adhesives, paints, yeast, medicines and plastics. Soybeans also provide protein for animals. Human foods are even being made from the beans. Some of them are beverages, candies, pancakes, soups, chocolate, meat products, cereals, salad dressing, macaroni, noodles and pastries. Uses for the oil range from ice cream to lubricating greases.

Farmers within Kansas will be able to sell their soybeans to the state's four processsing plants—at Fredonia, Girard, Emporia and Wichita. Capacity of the four plants is about 16 million bushels per year, which is about a million bushels over the 1961 Kansas production figure. Experts estimate that this year's crop will total about 14.75 million bushels.

Farmers across the state are putting more acres into soybeans each year. The trend started in 1958, according to Mader, when farmers raised about 450,000 acres of soybeans. Since then, acreage has nearly doubled; farmers this year are raising 800,000 acres of soybeans.

Future Bright for Northeast Kansas

Reasons for the trend, Mader explained, are that better yielding varieties have become available, farmers are beginning to better understand the production of soybeans, and climatic conditions have been favorable. Better prices helped out, too.

Mader feels that future soybean production increases will come mainly from the northeastern part of the state, since that section is closest to the large soybean-producing states.

County Agents Say 'Bean Future Good

Of 56 county agricultural extension agents questioned, the following statements express some of their ideas on the future of soybean production in Kansas:

"There is a fine future for soybeans at the present rate of production. If acreage is expanded too rapidly, and we have surpluses, then government control can be expected. I think we are producing slightly less than the demand at present prices, which makes it second to wheat as a cash crop."—Wayne H. Tyler, Bourbon County.

"We can raise more and better soybeans, and will do so, so long as the market holds up, and the acreage limitations do not prohibit further expansion. On a larger scale, soybeans seem to be a life saver for the farmers with restricted acreages, with a tremendous potential for more uses. I was afraid the honeymoon was over this past year, but I guess I was wrong."—Lowell Burchett, Jackson County.

"If the price holds up, this (soybean crop) is a good cash crop and acreage will increase. The trend is toward increased acreage each year. Soybean production has been increasing faster than normal the past couple of years because of the feed grain program restrictions."—R. F. Nuttelman, Montgomery County.

"With any success in a good year, beans will equal or pass some of our other crops in actual income per farm acre. The crop gives another use of a high-priced piece of farm machinery — the combine."—Leslie Sallee, Clay County.

"Soybeans have been a real good crop here the last three years; the yields run 30 to 40 bushels an acre, so this year the average will be double that of 1961."—Arnold Barber, Atchison County.

"We have more soybeans each year, and will continue this trend so long as the price remains in the range it is in now."—Arthur Johnson, Jefferson County.

"We need more drought-resistant varieties before soybeans become a major crop in this area."—Thomas Orwig, Dickinson County.

The key to your fashionability may be a basic dress—one that can go everywhere and always be suited to the occasion.

Key to Versatility—

A Basic Dress

by Sharon Stauffer

"SHE'S always well dressed but she doesn't have many clothes or much money to spend for them. How does she do it?"

The key to this woman's fashionability may be a basic dress—one that can go everywhere and always be suited to the occasion. With accessories switched, her dress is suitable for classroom, office, street, church or party.

Your basic dress should be simple in style. The bodice usually should be collarless and have sleeves. The skirt may be full or sheath, depending upon your figure. Pattern companies offer several versions of the basic dress with suggested accessories in their catalogs.

The fabric will be the main determinant in the use of the dress. A plain-colored rayon blend or faille may be serviceable year around while cotton or wool is seasonable. Consideration should be given to the quality of material and ease of care.

Because you will be wearing the dress often, select a flattering color that you like. Subdued shades are more desirable, and because of their versatility, black, brown, navy and gray are favorites.

Take stock of your accessories and choose a color that will harmonize with them. If you have a set of accessories in your basic wardrobe color, the most practical dress will be in the same color.

The real secret of the versatility of the basic dress is in the accessories you choose to wear with it.

Shoes, not only in different colors but in varied heel heights and materials, can affect your over-all appearance. Handbags should match the shoes. However, if you're making the dress, try a clutch bag in the same material.

Style Is Easily Changed

Gloves can lighten or brighten the costume. Short fabric gloves go well with any type of material and leather gloves worn with a wool dress lend an expensive look.

Belts can play up a small waistline or minimize a large one. You may make self-belts wide or narrow, and use leather with nearly any fabric. Or, choose novelty belts in straw or synthetics to add to the costume.

White collars, a small fur circlet, or scarves can put personality into your costume. You may draw these from your present wardrobe and use them with other dresses.

Jewelry possibilities are limitless. A dress in a neutral color can be accented with a variety of colors. A plain, round neckline is compatible with nearly all styles of beads.

Jackets may be worn with your dress as cover-ups. Add color and life to your outfit by using lace, paisley prints, plaids, stripes, and matching boleros and cardigans.

Hats top off your costume. Consider shapes and colors to maintain a balanced look.

Choose Accessories for Occasion

With a nominal number of accessories, you may wear your dress on many occasions. Choose carefully when putting the ensemble together for a well-dressed appearance.

For classroom wear, flat shoes and a simple pin at the neckline are suitable. Office and streetwear call for heels and perhaps a casual jacket or cardigan sweater.

A hat and a pair of gloves are musts for church and teas. Try a matched combination if the color fits in with the rest of your wardrobe.

You may find a lace jacket dressy enough for semi-formal events. For a party, wear a lace or net overskirt or a satin cummerbund with a party bag in the same material.

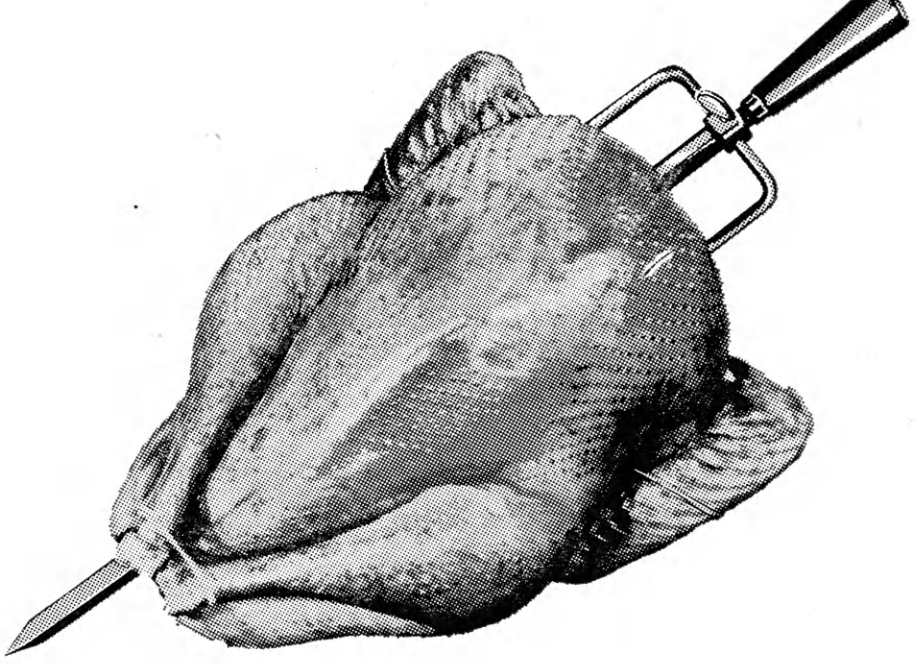
Upkeep on a basic dress will depend upon the fabric. It's easier for you to keep one dress ready to wear than three or four.

Try a basic dress, or maybe two, in your wardrobe. With careful planning you can be well dressed for less—fewer clothes, less money, less time.

Any Season—

With a Cook,

Fire and Food



It's Easy to Barbecue

BARBECUES are never out of season. Summer or winter, here's all you need—fire, a cook, and, of course, food.

Can you think of anything tastier than a delicious barbecued chicken prepared outdoors over a glowing bed of coals? Served with baked beans, potato salad, bread, coffee, and ice cream, it makes for a very delicious picnic or party meal. When the time comes for this treat remember that the success of a chicken barbecue depends upon having good broilers, well-planned advance preparations, and following a few simple rules.

The best chickens for barbecuing are of a broiler type and weigh approximately two pounds. The birds should be split in half, through the backbone and along the breastbone. If smaller servings are desired, the birds may be quartered.

The barbecue pit may be of a variety of kinds. For family use, a small grill will suffice. A larger pit may be constructed with a three-quarter inch pipe frame covered with a thin sheet of metal. Sides should be approximately 24 inches high and six feet long. Ends should be 24 inches high and 30 to 32 inches wide. Metal stakes or latches can be used to hold sides and ends together. A six-foot pit can hold two racks of 45 to 50 chickens each. The length of the pit can vary with the number of people to be served.

The barbecue rack or grill can be constructed from two one-half inch pipe frames covered with one by two-inch welded wire. One half of the rack should have a handle on one side; a support to hook over the side of the pit should be on the other. The two halves may then be clamped tightly over the chickens to keep them from sliding while turning.

Charcoal Is Faster than Wood

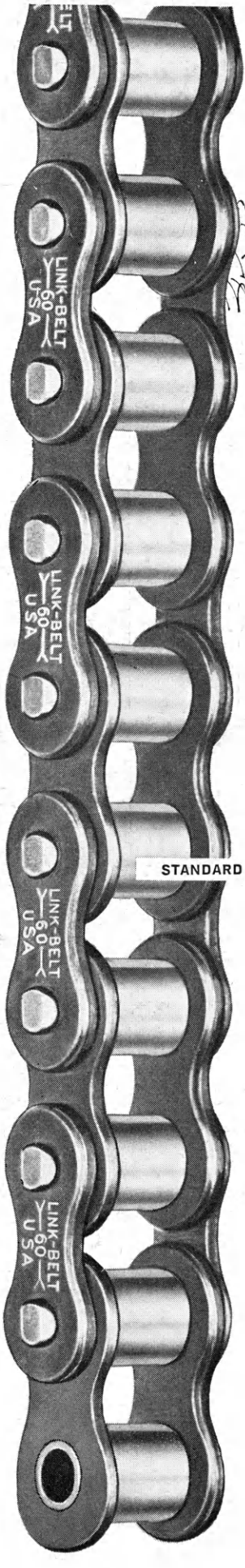
A good bed of coals is essential for cooking the birds. Wood or charcoal may be used for the fire. If wood is used, the fire needs to be started about two hours before it is time to put the birds on to cook. Use logs that are less than six inches in diameter, so they will burn completely down to a good bed of coals. Hardwoods such as oak or hedge are best because their coals hold fire for a long period of time. Briquettes are better than wood because they can be started 15 to 20 minutes before cooking time, and they are easier to handle. Never put the birds on until flames die down. Beginners have a tendency to put the birds on while the fire is still too hot. If cooking must be started soon after lighting, the fire can be cooled by sprinkling water over it. One of the secrets of successful barbecuing is cooking the birds over a slow, even fire.

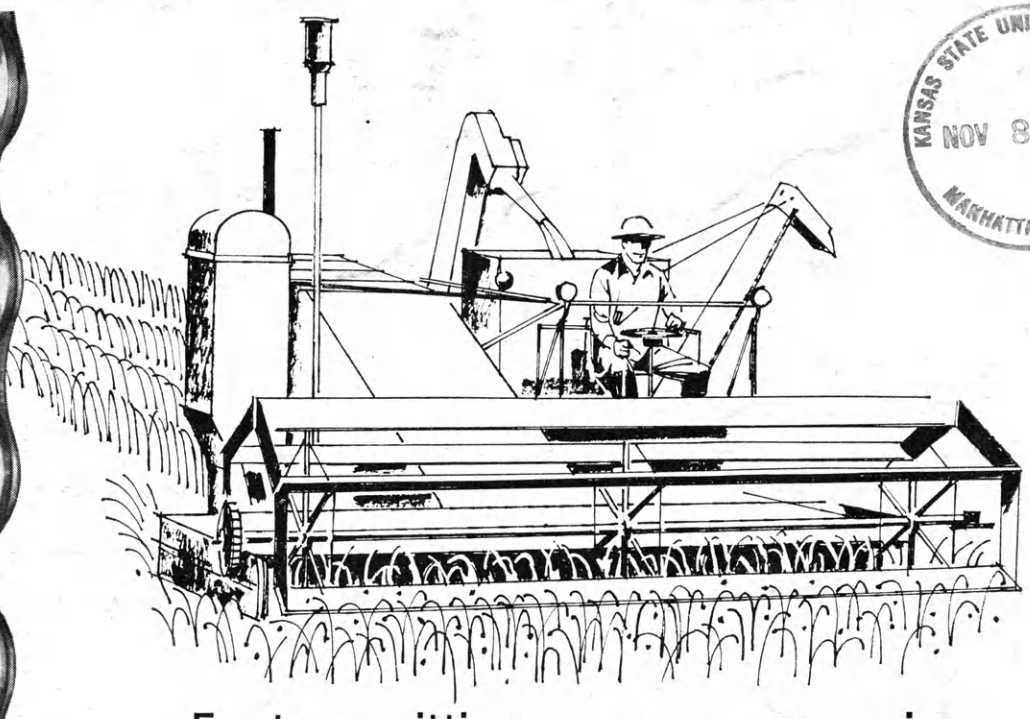
Turn Birds Frequently

During the cooking operation, the birds should be turned frequently. Placing of all birds with same side up to start with makes it much easier to determine when all of the birds have been turned. While the birds are cooking, they should be repeatedly covered with a barbecue sauce, either by spraying or by brushing on by hand. Keeping them well basted prevents their drying out and adds to their flavor. It is desirable to salt liberally at least twice during cooking.

The time required to barbecue chickens is from one hour to one hour and 15 minutes, depending upon the size of the birds and the amount of heat from the fire. Test birds for doneness by twisting the drumstick. If the bone separates at the thigh joint, the bird is done.

Following these simple rules will turn you into an outdoor chef whose talents will be enjoyed.

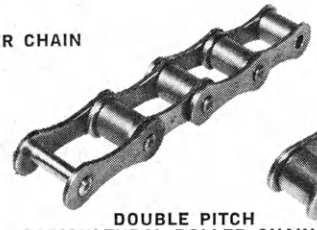




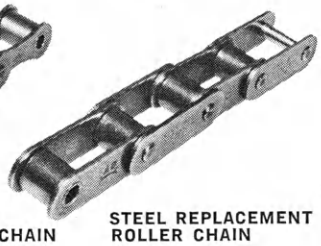
For transmitting power...or conveying

nothing does it like Link-Belt chain

STANDARD ROLLER CHAIN



DOUBLE PITCH AGRICULTURAL ROLLER CHAIN



STEEL REPLACEMENT ROLLER CHAIN

STEEL DETACHABLE CHAIN

For day-in, day-out service, nothing can match Link-Belt chain's strength and endurance . . . its positive efficiency . . . which add to the reliability of farm equipment drives and conveyors.

Today, over 300 farm machine manufacturers obtain this reliability from Link-Belt. Experience has shown them that chain marked with the double-arrow >——< trade-mark is made to high standards . . . has consistent quality and pitch uniformity . . . will maintain rated performance and efficiency on their machines.

Link-Belt offers industry's most complete line of drive and conveyor chains, chain attachments and sprockets. Also "bonus" services that aid the designer, improve the design: application counsel, field analysis, laboratory service and others. These services multiply the value of Link-Belt chains, but not the price!

15,794

LINK-BELT

THE SYMBOL OF QUALITY — LINK-BELT

CHAINS AND SPROCKETS

LINK-BELT COMPANY: Executive Offices, Prudential Plaza, Chicago 1. To Serve Industry There Are Link-Belt Plants and Warehouses in All Major Industrial Areas and District Sales Offices and Stock Carrying Distributors in All Principal Cities. Export Office, New York 7; Australia, Marrickville (Sydney); Brazil, Sao Paulo; Canada, Scarboro (Toronto 13); South Africa, Springs; Switzerland, Geneva. Representatives Throughout the World.