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HIGHLIGHTS of AGRICULTURAL RESEARCH

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AGRICULTURAL EXPERIMENT STATION SYSTEM
of the ALABAMA POLYTECHNIC INSTITUTE

SERVING ALL of ALABAMA

A REPORT *from the* AGRICULTURAL EXPERIMENT STATION

E. V. SMITH
Director

LIKE THE corporation's report to its stockholders, this is the A.P.I. Agricultural Experiment Station's report to Alabama people concerning: (1) the 1955 Legislature's action on the Experiment Station's requests; (2) the problems facing the Station as the result of failure of the voters to approve the Goodwyn and School Bond Amendments; (3) the ways in which the Station will attempt to meet the emergency on a temporary basis; and (4) possible future courses of action.

1955 Legislation

Since the Experiment Station is a division of the Alabama Polytechnic Institute, its state appropriations are included in the Educational Appropriation Bill. The Governor's budget for education, which was approved by the Legislature, provided a moderate increase for the Agricultural Experiment Station System. The School Bond Amendment included an item for buildings for the "Agricultural and Veterinary Sciences." However, these benefits were dependent upon the passage of Constitutional Amendments 1 and 2 or upon subsequent action by the Legislature.

Problems Facing Experiment Station

Like other divisions of public education, immediately upon passage of the Educational Appropriation Bill the Experiment Station was faced with the problem of whether to raise salaries on October 1 or to await the vote on the Goodwyn Amendment. Caution suggested waiting. Reality dictated action, however. The Station had built a staff of well-trained, dedicated scientists. Because they are well trained and competent, many have received offers from other institutions. Alabama could not afford to lose even one of these research workers. Therefore, the Station, along with other divisions of the Institution, made salary improvements effective October 1. When the Goodwyn Amendment failed to pass December 6, it meant that tax collections would not equal appropriations and that each educational agency would receive a percentage of its appropriation. Only 17.9 per cent (instead of 25) of the appropriation for the quarter October 1 to December 31 was received. Recently it has been estimated, however, that current sources of revenue may equal or exceed 80 per cent of appropriations for the year.

Thus, the Experiment Station was faced with the problem of making approximately $80 do $100 worth of work. To do this it was necessary to retain present staff and to assure them that their work would not be seriously hampered by a lack of operating funds. The problem of an inadequate physical plant had been serious even when there was hope for early relief. When the bond issue failed to materialize, the problem became much more pressing.

Emergency Measures

During the week of December 11 to 17, the staff of the Director's Office studied the 1956 budget in minute detail. Every saving that had been made earlier was taken into account. Plans were made to defer expenditures that could be deferred temporarily. Planned new research was held in abeyance. After careful study, it appeared that the Experiment Station could maintain salaries and continue to conduct its research at near normal levels for a short time.

It cannot be emphasized too strongly that the measures that are being put into effect are emergency measures. They are not the long-time solution to the problem of supporting an adequate research program. They are not the most desirable nor are they necessarily the most economical. Farmers suffer when needed new research is not initiated. Deferring purchase of a needed truck or microscope may be false economy, but the end may justify the means.

Possible Future Courses of Action

The most desirable course of action is one that will allow the Experiment Station to continue its research program at current levels. Obviously, this course depends on finding some means of providing revenue to support the 1955 appropriations in full. If this is done, salary improvements will be maintained; the efficiency of research will be improved because some additional maintenance funds will be available; there will be some additional support for the recently initiated program of research on animal diseases; and the program at the substations can be strengthened by the earmarked fund provided for that purpose.

A second possibility would be to cut salaries back to September levels. The effect of this on morale would be disastrous.

A third possibility would be to maintain salaries, but to reduce the total research program in line with reduced financial support. Under this course of action, positions would be eliminated and projects closed whenever vacancies occurred. Under it, much critically needed new research could not be initiated.

Surely the problems of Alabama agriculture are such that an expanded program of research is needed, not one of retrenchment. Which shall it be?

FIGHT *against grain insects begins* NOW!

W. G. EDEN, *Entomologist*

SAFEGUARDING your corn crop this year against grain insect damage starts now – choosing the right variety.

Corn varieties vary widely in their resistance to attack by such stored grain insects as rice weevil and Angoumois grain moth. These are the most important grain pests in Alabama.

Over a period of years, experiments by the API Agricultural Experiment Station showed that husk cover and hardness of grain were measures of resistance to stored grain insects.

Shuck Cover

Shuck cover is the most important characteristic of a corn variety that affects susceptibility or resistance to attack. A good husk cover was found to be one that has more than 2 inches of husk extending beyond the ear tip and that has the tip of the husk tightly closed, with none of the ear exposed. (See photo.) It is difficult for an insect such as the rice weevil to penetrate the husk of a well-covered ear. Studies have shown that this holds true in the corn crib as well as in the field. The results from a study of 29 varieties are given in Table 1. In this study where a husk cover rating of 5 is best, notice how the weevil damage, both at harvest and after 8 months of storage, increased as the husk cover rating decreased.

Hardness of Grain

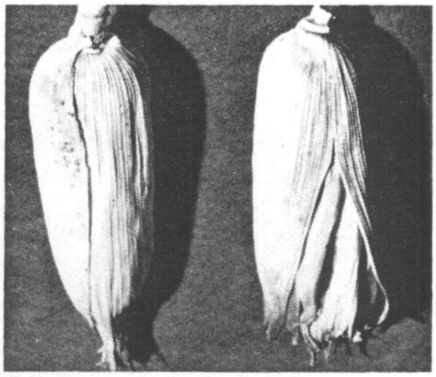
Hardness of kernel is another characteristic that affects the amount of damage a corn variety suffers from stored grain pests. The harder the corn kernel, the more difficult it is for the insect to eat. In the case of the rice weevil, hardness makes it more difficult for the adult female to puncture and deposit her eggs inside the corn kernel.

In the study of 20 varieties shown in Table 2, notice that the harder corns, such as Tennessee 1032, had less damage than the softer ones, such as Dixie 17.

Most Resistant Varieties

What varieties and hybrids are the best? In Table 3 are listed 25 varieties that have been grown in the variety tests at Auburn for the past 3 years by the Department of Agronomy and Soils. This table shows the average percentage of damage by stored grain insects to these corns at harvest. The most resistant corns are Dixie 18, Louisiana 521, McCurdy 1003, and Coker 811. The most susceptible are Funk G-704, Pioneer 510, Pioneer 301A, and U.S. 13.

Some varieties and hybrids are recommended in one section of the State and not in others for various reasons. A corn variety should not be selected only on the basis of its resistance to stored grain insects. For further information on recommended varieties, the 1955 Corn Variety Report issued by the API Agricultural Experiment Station should be consulted.



Good shuck cover at left protects, whereas loose cover at right exposes ear to grain insect attacks.

TABLE 1. RELATIONSHIP OF HUSK COVER OF CORN TO RICE WEEVIL DAMAGE AT HARVEST AND AFTER 8 MONTHS STORAGE

Variety	Damage at harvest	Husk cover rating (5=best)	Damage after 8 months storage
	Pct.		*Pct.*
Dixie 18	2.2	4.67	14.2
Dixie 11	3.5	4.06	42.5
La. 1031	2.8	3.94	22.2
La. 521	3.3	3.91	41.0
Woods S-360	4.9	3.87	18.2
McCurdy 1010W	3.0	3.76	17.1
N.C. 27	4.6	3.75	21.7
McCurdy 1002	3.9	3.72	21.6
McCurdy	5.5	3.59	28.4
Funks G-714	5.2	3.48	23.2
Paymaster	10.7	3.45	45.2
Tenn. 10	10.3	3.43	38.3
N.C. 26	8.2	3.43	29.8
Ga. 101	7.3	3.41	40.3
Funks G-737	4.0	3.36	23.9
Indian Chief	6.4	3.21	26.0
Mosby	16.4	3.20	55.5
Dixie 17	6.6	3.17	49.0
McCurdy 1005W	11.7	3.17	44.2
P.A.G. 630	5.8	3.14	47.8
Funks G-717	7.9	3.09	26.8
Tenn. 602	5.4	3.00	24.6
Dixie 44	11.0	2.84	31.4
N.C. 1032	5.2	2.76	29.0
P.A.G. 631W	18.6	2.66	56.8
P.A.G. 620	10.4	2.39	53.4
Funks G-711	17.1	2.07	62.6
P.A.G. 170	18.7	1.93	72.2
U.S. 13	26.1	1.81	81.9

TABLE 2. RICE WEEVIL DAMAGE TO CORN AS RELATED TO HARDNESS

Variety	Weevil damage	Hardness
	Pct.	*Lb. per sq. in.*
N.C. 1032	44.6	59.60
Funks G-717	44.9	54.52
McCurdy 1002	26.3	53.46
Funks G-714	46.3	51.96
Dixie 44	62.7	51.60
Dixie 18	44.6	51.26
P.A.G. 170	74.6	50.22
P.A.G. 630	68.5	49.82
N.C. 26	37.1	49.38
La. 521	27.0	48.76
La. 1031	30.1	46.96
U.S. 13	87.1	47.88
N.C. 27	32.9	36.34
Woods S-360	41.9	45.42
Mosby	43.2	42.98
Tenn. 10	53.9	42.62
Dixie 11	28.5	41.38
McCurdy 1005	57.9	40.54
Paymaster	61.7	39.90
Dixie 17	56.2	38.82

TABLE 3. INSECT DAMAGE TO CORN VARIETIES AT HARVEST. AUBURN, 1953-55

Variety	Kernels damaged	Variety	Kernels damaged
	Pct.		*Pct.*
Dixie 18	10.2	Miss. 1123	25.3
La. 521	10.7	Paymaster	31.8
McC'dy 1003	11.6	Dixie 33	31.8
Coker 811	11.9	Dixie 22	31.9
Coker 911	15.8	Pioneer 309A	36.0
Funk G-785W	16.4	Dixie 17	37.5
Pfister 655	17.5	Mosby	38.6
N.C. 27	18.6	Pfister 631	39.3
Dixie 82	20.2	Funk G-704	50.6
Funk G-779W	20.6	Pioneer 510	54.1
Pfister 486	22.2	Pioneer 301A	59.1
Dixie 11	22.7	U.S. 13	60.7
McC'dy 1001A	23.5		

Above—Dead twigs in this tree resulted from zinc deficiency; below—tree fertilized with zinc shows recovery from rosette.

PECANS *need* ZINC

T. B. HAGLER
Associate Horticulturist

ARE YOUR PECAN TREES beginning to die at the tips of the branches? Do the leaves turn brown and die in late summer? If so, your trees are probably suffering from a deficiency of zinc, a condition known as "rosette" in Alabama.

A survey showed that as many as 90 per cent of pecan orchards in certain sections of Alabama needed zinc. Although zinc deficiency is more prevalent on pecan trees growing in the sandy soils of southeastern Alabama, it also occurs on trees growing in the heavier Coastal Plains and Piedmont soils. Therefore, you can expect rosette to appear wherever pecans are grown in Alabama if zinc is not included in your fertilizer program.

Symptoms of Deficiency

Just what are the symptoms of zinc deficiency, and how can you as a grower determine whether your pecan trees are deficient? Examine your trees in late summer to see if the young leaves are beginning to crinkle and turn yellow or brown between the veins. Zinc-deficient trees will usually exhibit a brownish appearance from a distance. The nuts will usually be small and poorly filled, and yields will be low. Later stages of the deficiency result in death of leaves and young twigs. New growth on a zinc-deficient tree will come out in whorls having the appearance of a "rosette." Large limbs in the tops of trees may die in extreme cases of deficiency.

Pecans grow best on soils having a pH of 6.5 to 7.5. Therefore, pecans growing on soils with a pH below 6.5 will respond to applications of limestone, but this will increase the necessity of applying zinc to prevent rosette. Unless zinc is applied, yields may actually be reduced by applications of limestone.

A zinc fertilization program for pecans falls into two categories: first preventing the deficiency and second correcting the deficiency. Deficiencies are easier to prevent than they are to correct after they have developed.

Preventing Deficiency

To prevent the development of zinc deficiency on mature pecan trees, apply 2 to 3 pounds of zinc sulphate (36% metallic zinc) per tree per year. A complete fertilizer containing zinc similar to that used for corn may be used, but it will be necessary to add additional zinc sulphate unless the rate of application is 1 ton per acre or more. On young trees zinc sulphate should be applied at the rate of ½ to 1 pound per year of the tree's age. In pecan orchards where rosette has never occurred, the zinc sulphate may be applied at the rate of 10 pounds per tree every 5 years if annual applications are not convenient.

If you are growing legumes in your pecan orchard and if a soil test shows that lime is needed for the growth of the legume, it is especially important that the applications of zinc sulphate be made soon after the lime is applied. Results of tests on sandy soils in Barbour County showed that 1 ton of agricultural limestone per acre increased the yield of pecans when zinc was applied to prevent rosette. Best growth and appearance occurred on trees fertilized with both limestone and zinc and where the pH, following treatment, ranged between 6.8 and 6.9.

Correcting Deficiencies

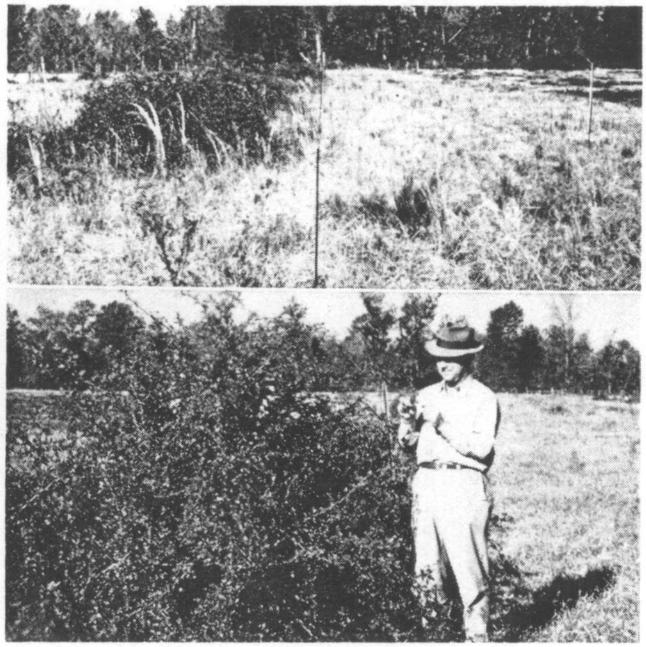
It is much harder and more expensive to correct zinc deficiency in pecans than to prevent its development. If your trees are mature and if they show symptoms of rosette, you should apply 10 to 15 pounds of zinc sulphate per tree per year for 2 successive years and follow this with annual applications of zinc sulphate as used for the prevention of rosette.

Zinc deficiency can also be corrected by spraying trees with zinc sulphate in early spring when leaves are about three-fourths grown. A mixture of 2 pounds of zinc sulfate to 100 gallons of water is applied at the rate of 30 to 50 gallons per tree, depending on the tree's size. Two or three applications are necessary during the growing season.

For more information on pecan production, see A.P.I. Agricultural Experiment Station Circular 115, "Factors Affecting Pecan Yields." Copies can be obtained from your County Agent, or from the API Agricultural Experiment Station, Auburn, Ala.

WEEDS *in* *pastures* COSTLY

V. S. SEARCY
Assistant Agronomist



Above — Untreated area at left, treated at right; below — closeup of large Cherokee rose clump in untreated area.

WEEDS IN PASTURE no longer need be tolerated – they now can be controlled effectively by chemicals.

Cherokee rose, bitterweed, alder, and other pest plants cost Alabama livestock farmers untold thousands of dollars in reduced production and market penalties.

Six years' results from experiments by the API Agricultural Experiment Station show how some of the more troublesome weeds can be controlled economically.

Cherokee Rose

Experiments at the Lower Coastal Plain Substation, Camden, Ala., show that Cherokee rose can be controlled by following these simple procedures: (1) remove top growth of old roses; (2) when new sprouts or seedling roses reach a length of 12 to 18 inches, spray with 2 pounds (acid equivalent) of an amine form of 2,4-D per acre or 1 pound of a low volatile ester of 2,4-D in 20 gallons of water per acre; (3) spray as often as the new growth of roses reaches the specified length. Two to three applications per growing season are usually needed.

Cherokee rose growing in a common lespedeza-Dallisgrass pasture and treated with a total of 8 applications as just described had 83 old roses per acre surviving after 4 years. The mowed treatment had 1,359 old roses per acre, while the undisturbed check had 790. The reason for fewer roses in the check plot is that numbers of roses had grown together into large clumps, as shown in the photos. Frequent mowing will not kill Cherokee rose; it will only cause them to flatten and spread along the soil surface. After 4 years, seedling roses are still coming up in the treated plots, even though no seed have been produced during the test period. This emphasizes the necessity of a long range spray program if Cherokee roses are to be kept under control.

Common lespedeza and white clover should not be sprayed until well established. For white clover pastures, use only 1 pound per acre of an amine form of 2,4-D as long as adequate control of roses is obtained. Up to 2 pounds per acre can be applied if necessary to control roses. Do not spray white clover during fall and winter when freezing weather might occur in 30 days. Established permanent pasture grasses will not be injured by recommended rates of 2,4-D.

Light infestations or inaccessible spots of Cherokee rose can be controlled by evenly covering the area with one of these soil sterilants that kills all vegetation: 10 pounds concentrated Borascu per 100 square feet of area; Borascu and Gertlsey Borate, 15 pounds per 100 square feet; or CMU at the rate of 0.17 pounds per 100 square feet. These materials are applied dry, except CMU which is applied as a spray.

Other Weeds

Experiments have shown that 1 pound per acre of an amine form of 2,4-D is very effective in controlling such important broadleaf pasture weeds as bitterweed, dock, dog fennel or summer cedar, and marsh elder or camphorweed.

It is best to apply 2,4-D when weeds are in good growing condition and before they begin to bloom. Most annual weeds will be killed with one application. However, where weeds continue to come up, repeated treatments are needed. Most deep-rooted perennial weeds require repeated treatments for satisfactory control.

Precautions

1. Do not spray white clover and common lespedeza until well established.

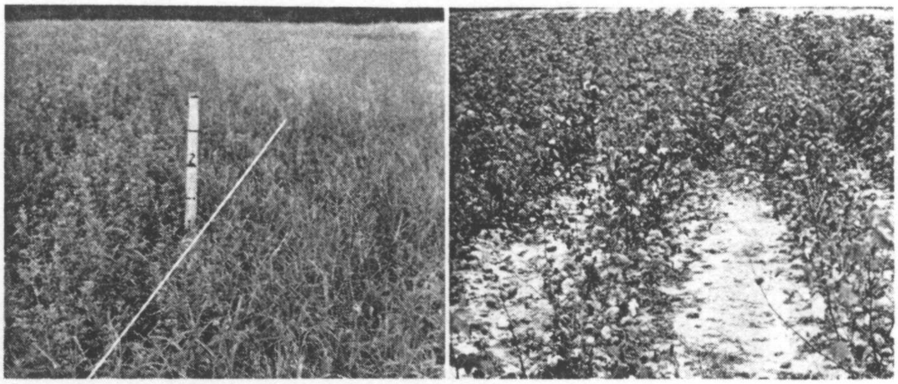
2. Do not spray white clover if freezing weather is expected within 30 days.

3. Do not spray vetch, Caley peas, or crimson clover with 2,4-D.

4. Most desirable pasture legumes will be killed or seriously damaged by 2,4-D except white clover and lespedeza as already described.

5. 2,4-D is toxic to almost all seedling grasses.

For more details, see A.P.I. Agricultural Experiment Station Leaflet 43, "Chemical Control of Cherokee Rose, Alder and Certain Other Pasture Weeds." Copies may be obtained from your County Agent, or from the API Agricultural Experiment Station, Auburn, Ala.



Left—Weedy 7-year-old alfalfa at right received only 60 pounds of K_2O annually, good stand at left was fertilized with 240 pounds K_2O annually; right—cotton following alfalfa on same area shows severe potash deficiency in area receiving low K_2O applications, good cotton where alfalfa received 240 pounds K_2O annually.

Maintaining enough SOIL POTASSIUM *important*

R. D. ROUSE
Associate Soil Chemist

DON'T SETTLE FOR low yields from cotton following such crops as alfalfa, sericea, and peanuts!

In general, not enough potash is the answer, with lime being a limiting factor occasionally. These three legumes remove more potash and lime from soil than most other crops.

Cotton readily shows potash deficiency symptoms when the soil supply of potash is depleted; therefore, it is the crop on which trouble is most frequently noticed. Research by the API Agricultural Experiment Station has shown, however, that the yields of corn and other crops will reflect potassium deficiency following hay crops not supplied enough potash.

Heavy Potash Feeders

Any forage crop that is removed from the land takes with it large amounts of potassium. With few exceptions, Alabama soils are very low in total available potassium. Therefore, sound fertilization practices must include sufficient potassium to produce economical yields and supply the soil with about as much as is removed by the crop.

For example, about 260 pounds of K_2O (potash) per acre is needed to produce a good yield (4 tons) of alfalfa hay. About 160 to 200 pounds of K_2O is removed in the hay and otherwise lost from the soil. Since alfalfa is a very effective feeder on soil potassium, the available potassium will be seriously depleted unless this amount is applied. This depletion will result in stand failures and reduced growth of alfalfa; also, the soil will be so depleted of potassium that yield of the following crop will be reduced. Therefore, this Station recommends an annual application of 200 pounds of K_2O per acre for alfalfa on most soils.

Although sericea and peanuts produce less forage than alfalfa, they are efficient feeders of potassium, rapidly depleting the soil's supply. However, annual removal is less (50 to 80 pounds). On the same soil, a longer time will be required for deficiency to develop than that in the case of alfalfa. However, these crops are grown usually on soils lower in potassium. Without adequate additions of potash, yields may be reduced in a short time. This Station recommends an annual application of 50 pounds of K_2O for sericea and 60 to 80 pounds for peanuts on most soils.

When the recommended amount of fertilizer is applied to hay crops, the land normally will be in as good if not better condition for other crops as before the hay crop planting.

High Rate To Correct Deficiency

When land has already been depleted, it requires an unusually high rate of potash to correct the deficiency. On land of a Tennessee Valley farm depleted by alfalfa, the following yield increases of seed cotton resulted from broadcast applications of K_2O:

	Pounds per acre		
Rate of K_2O	120	240	480
Increase (s.c.)	272	304	456

The soil was classified as Decatur clay loam, which normally gives little response from high applications of potash. The sizeable yield increases from high rates indicate the soil's state of potash depletion following alfalfa.

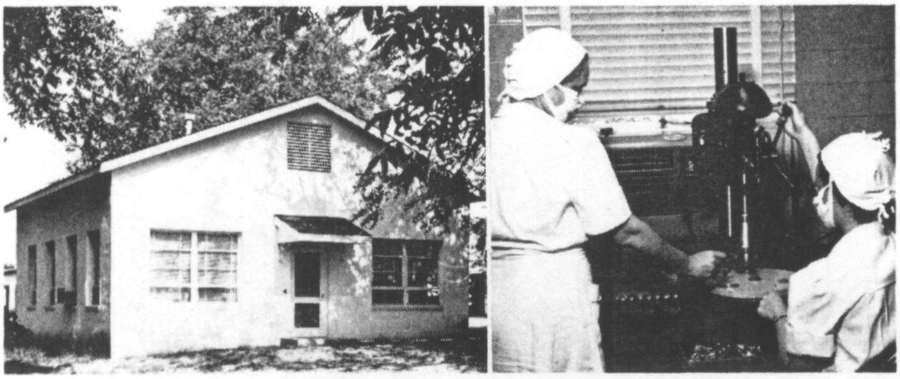
On Chesterfield sandy loam at Auburn where alfalfa had received 60 pounds of K_2O annually for 7 years, four rates of application of K_2O in the drill gave these yield increases of seed cotton:

	Pounds per acre			
Rate of K_2O	24	48	96	192
Increase (s.c.)	177	284	407	538

Where cotton followed alfalfa that received 240 pounds of K_2O annually for 7 years, the increases from the same application rates were only 6, 107, 40, and 161 pounds of seed cotton per acre. On Susquahauna fine sandy loam at the Tuskegee Experiment Field, cotton yields were increased 253 pounds per acre from 96 pounds of K_2O following 7 years of sericea that had not received potash. On the other hand, yields increased only 4 pounds when cotton followed sericea fertilized yearly with 120 pounds of K_2O.

At the Wiregrass Substation on Norfolk sandy loam, cotton yields were increased 589 pounds by broadcast application of 360 pounds of K_2O on land that had been in a 2-year rotation of cotton and peanuts for 10 years. The cotton had received 48 pounds of K_2O annually, but the peanuts had not been fertilized.

These examples of results stress importance of proper fertilization to prevent soil depletion. Furthermore, fertilization also pays dividends in higher yields and better stands of hay crops.



Left—Laboratory at the API Agricultural Experiment Station built especially for producing coccidiosis vaccine under strictly controlled conditions; right—technicians capping vials of vaccine for delivery to pharmaceutical firms.

You can now inoculate against COCCIDIOSIS

S. A. EDGAR
Poultry Pathologist

Coccidiosis is a constant threat to the broiler grower and the commercial egg producer. It is likely to occur in any group of chickens reared under ordinary floor management methods.

Following severe outbreaks, losses may run high from noticeable lack of thrift and retarded growth, and from deaths. Mild attacks on the other hand often go unnoticed, especially if a small portion of the flock is affected at any one time. Yet, even these mild attacks may cause growth slowdown and poor feed conversion.

Causes

Under investigation since the late 1920's, coccidiosis of poultry is now known to be caused by at least eight species of coccidia – tiny protozoan parasites. One of these affects the blind pouch (cecal) and the other seven primarily damage the small intestines, at least five of which are of dollars-and-cents importance.

In severe cases of cecal coccidiosis, there is considerable hemorrhaging and sloughing of the pouch lining; severe cases of the intestinal types are marked by sloughing of the small intestinal lining.

Typical symptoms of affected birds are ruffled feathers, chill rigors, unthriftiness, and bloody diarrhea.

Considerable progress has been made in control of the disease through better nutrition and management, and through widespread use of medicants. However, recent conservative estimates by USDA place annual losses from the disease at more than $38 million.

Research in Alabama

The API Agricultural Experiment Station began coccidiosis research in 1947. One objective was to attempt to develop a practical method of immunizing chickens against one or more types of the disease.

Results of Auburn studies show that the cecal and four intestinal types of coccidiosis are widespread and are of economic importance in both broiler and commercial egg production. Furthermore, losses from retarded growth and poor feed conversion were found to be greater than those from mortality. Chicks under 2 weeks of age suffering with any of the several types studied were less affected than chickens having the disease at 4 to 6 weeks or older. Chickens infected with the cecal-type coccidia at 6 weeks weighed almost one-half pound less at 12 weeks than those inoculated at 3 days of age. Also, fewer died when infected at 3 days than when infected at older ages.

Although chickens are most susceptible to coccidiosis at 4 to 6 weeks of age, they are susceptible until such times as they develop immunity. The disease caused by any one species is self limiting and immunity develops promptly following two or three mild cycles of infection; however, immunity to one species does not give resistance to another. A very small number of organisms is required to initiate development of immunity. Chicks can be innoculated at a very early age with at least 5 types of coccidia and develop immunity by 4 weeks without damage. Techniques for production and storage of infective oocysts have been improved.

These and other findings led to the development at Auburn of a simple and practical method of immunizing chickens, first against the cecal type alone and more recently against a combination of cecal and three intestinal types of coccidiosis.

The combination inoculum is mixed with the feed and fed during late morning of the third day after chickens are placed in the house. Chicks are starved for 2 to 3 hours before being given the vaccinated feed, which is kept before them until all is consumed. Beginning the 13th day after inoculation, a specified amount of sulfaquinoxaline, which is a part of the vaccination procedure, is given in the drinking water for 2 to 3 days or until consumed. By 28 days the chickens will have acquired sufficient immunity to withstand ordinary exposure.

The coccidiosis vaccine, first for cecal alone and then as a combination type, is produced by the Poultry Husbandry Department of the Experiment Station under carefully controlled conditions. It is released to pharmaceutical firms through the Auburn Research Foundation. The vaccine was first released 3½ years ago and has been used by poultrymen to immunize more than 50 million birds throughout the United States and several foreign countries at an average cost of a little less than 1 cent per bird.

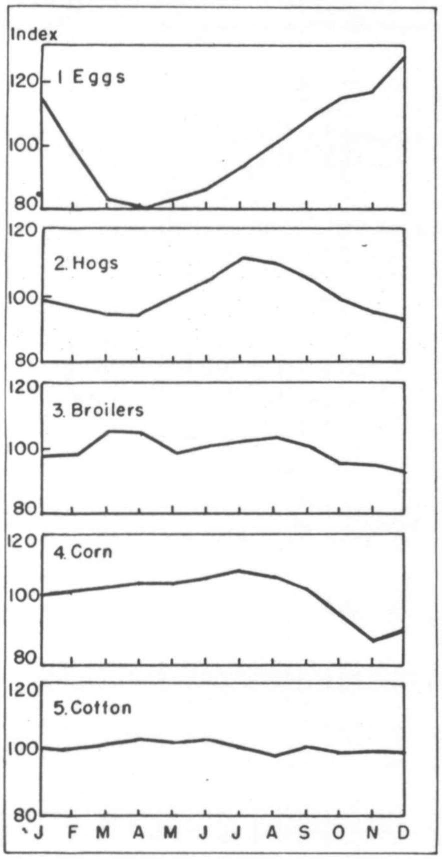
CASH IN ON—
Seasonal price changes

MORRIS WHITE and J. H. YEAGER
Department of Agricultural Economics

WATCH PRICES FALL when my products are ready to sell! You have often heard farmers make this statement. In a large measure, it is true. However, in many cases, production and sales can be adjusted to take advantage of seasonal price changes. This means selling more when prices are highest and less when prices are lowest.

Adjustments that can be made to take advantage of seasonal price changes center in: (1) becoming more familiar with markets; (2) planning breeding programs; (3) keeping ahead on feed supplies; and, (4) storing certain commodities.

A study of variation in monthly prices for 14 commodities during 1948-54 was recently completed. The amount and pattern of seasonal variation in prices for 5 commodities are reported here.



1. EGGS. Showed most seasonal variation of any commodity studied; 26% above average in December; 20% below average price in April. Monthly prices during 7 years consistently dropped from January through April; in most cases they increased from May through December.

2. HOGS. Prices reached a peak in July and August; dropped 16% by December; minor peak occurred in January, whereas prior to 1948 prices increased in March.

3. BROILERS. Highest prices were in March, April, and August; usually lowest in December; during 7 years studied, monthly prices decreased from April to May; prices particularly affected by changes in number of broilers marketed as well as demand factors.

4. CORN. Highest prices in summer; lowest in October, November, and December; 22% average price rise from November to July.

5. COTTON. Although a major source of farm income, cotton showed very little seasonal variation in price; only 4% price difference from lowest to highest month; reasons: price support programs as well as supply and demand conditions.

New and Timely PUBLICATIONS

Listed here are timely and new publications reporting research by the Agricultural Experiment Station.

Leaflet 45. Control of Insects and Foliage Diseases of Tomatoes in Alabama gives the best methods and materials for control.

Progress Report 59. Fattening Rations for Finishing Steers after Summer Grazing reports 2 years' experiment on utilization of pasture and feed to carry calves to heavier weights and higher finish.

Progress Report 60. Control of Soil Insect Pests in Gulf Coast Irish Potato Fields explains effective methods for control of wireworms and imported fire ants.

Progress Report 61. Construction and Operation of Outdoor Brooder describes how open structure is built and how it is used. Includes simple construction plan.

Free copies may be obtained from your county agent or by writing the API Agricultural Experiment Station, Auburn, Alabama.

HIGHLIGHTS
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