

**UPPLECENTING** PASTURES The growing of soiling crops for supplementing pastures is a fine way to provide green, succulent feed for dairy cattle but it is expensive in the use of labor. This is the principal reason why soiling crop feeding has not come into general practice. There are other ways of bridging the gap occasioned by inadequate native pastures. The first of these is that of getting more out of the native pastures by fertilization and controlled grazing. Ir, in this case, the native pasture sod is fairly good, we are of the opinion that it will respond profitably to fertilization and controlled grazing. This will insrease the carrying capacity of the native pasture both as to number of cattle and number of day during which satisfactory grazing is supplied. It is best to put on 200 lbs. per acre of a high analysis, complete fertilizer such as a 15-30-15 containing 15 per cent nitrogen, 30 per cent available phosphoric acid, and 15 per cent potash. This should be applied ahead of the first spring growth of grass. In addition to this put on 150 lbs. per acre of a soluble nitrate fertilizer in June after the cattle have grazed the grass down enough as to need some time for recuperation. This plan of fertilization is most effective when associated with controlled grazing. By this we mean that the native pasture should be divided by temporary fencing into smaller areas and these grazed one at a time by the milking herd in rotation, and these cattle followed by the young stock. In this manner the cattle that need best feed in abundance get it by being moved to fresh grazing. By dividing the pasture area available into three or more smaller areas, opportunity is given each area to recuperate. It is suggested supplementing this plan of more and better feed, with seedings of sudan grass on cultivated land convenient for grazing. Depending somewhat on the area of native pasture available as also on the condition of the sod, one seeding of sudan grass could be made at corn planting time and another seeding made the latter half of June. These seedings will be ready for grazing six to seven weeks after planting. The first seeding of sudan grass should not be pastured so heavily that it will not recuperate quickly when the cattle are put on other pasture. With two seedings of sudan grass and with fertilization and controlled grazing on the native pasture, we are of the opinion that the needs of the herd can be met satisfactorily and at considerably lower labor cost than with the use of soiling crops.

# TEACH ROOSTING EARLY

Chicks, like children, learn new habits dealing with eating and sleeping very readily when young

being equal, he finds that late roosting flocks always have the most runts, culls, poorly shaped bodies and low vigor.

# FEEDING BROILERS

The cost of securing the pullets for egg production next fall and winter may be appreciably reduced by marketing the male birds from among the baby chicks purchased to good advantage. Improper feeding and care will make these same male birds a liability rather than an asset. The most economical gains are made the first eight or nine weeks after hatching. A Leghorn male bird, if fed after he reaches two pounds weight, will soon have a cost charged against him that cannot be returned on the average poultry market. The disposing of these young males as broilers is usually the most profitable system of handling them. The birds to be so more rapidly than pullets or males intended for breeding purposes. The feeding of broilers is usually divided up into about three periods: one, will bring it back to its original the fruit being two feet in diameter, growing; two, forcing; three, fattening. The first four weeks pullets and roosters are carried along together and the usual growing feeds and care are all that the broiler needs. During this time the digestive system is built up for handling through the efforts of the garden larger amounts of a richer feed and the body is developed strong to withstand disease and infections. ble as nearly as possible the garden As soon as the chicks have become of the old days. These clubs have well established physically, are well past the danger of ordinary chick restore to the garden the nafive ills, and may be selected from the thododendrons, mountain laurel and opposite sex, they are ready for the forcing ration. No definite time after hatching can be stated, as the the time of year, breed, and so on brings about great variations. The early maturing breeds are usually forced somewhat earlier than the slower growing kinds. The forcing ration should be a little higher in protein than the growing ration. If been fed during the growing period, feeding a higher proportion of mash will result in raising the protein content. Increased amounts of buttermilk, skimmilk, cottage cheese, and the like make better sources of forcing proteins than meats. The ration thus narrowed offers less chance of upsetting the digestion. Care should be taken to see that no change is made so sudden that digestive disorders will be caused to arise. The fattening period should

not extend over more than twelve days and possibly not over eight in many cases. Penning up to prevent too much exercise and development of muscles, and feeding of rations high in corn are to be advised. Milk fattening should be left to the commercial fattener unless the birds are to be dressed on the farm, as shipping the highly fleshed bird often results in excessive shrinkage and loss.



Good News for Lovers of Horticulture.

the United States is located within that the garden, which includes 90 phia, and is one of the shrines of the East," L. C. Breed in the Garthe horticulturally minded tourist. dener's Chronicle tells us of the veg-The two-hundredth anniversary of etation in this garden of wonders. the founding of this old garden was The governor-general's house, which celebrated on June 5 and 6 of this is located in the garden, is apspent in special exercises of a his- world. These are Kanari trees reachthe visitors were guests at the gar- straight trunks, covered with stagden, tea being served in the old home horn ferns, Birdsnest ferns, orchids of the founder, John Bartram, a and every type of parasite and air section of which was built in 1700, plant that the climate will permit. by Swedish settlers, and became the Mr. Breed also describes a palm built later. The building was pur- a "wilderness of climbing plants." chased by Mr. Bartram in 1728, and among which are palms with marketed should be forced a little the original house still remains in branches 606 feet in length. He the garden enclosure.

den purposes for two hundred years. before the branches spread. The house has been restored to its

original form and now the garden, clubs of Philadelphia and surrounding country, will be made to resemundertaken as their first work to other evergreens. John Bartram was a native Amer-

Ican, his birthplace being Darby, Pa., near Philadelphia. He lived to the good old age of seventy-eight and died in Bartram house in 1777. The garden is located on the west bank of the Schuylkill river, and for many years it was a most isomash and scratch grains have both lated spot. It was through his voluminous correspondence with Peter Collinson, a grower in London, Eng- seldom buried.

land, and the exchange of many NO RECREATION IN seeds and plants, that Mr. Bartram's work became well known.

Another famous botanical garden which ranks as the finest in the world is at Bintenzorg, Java, this garden in its present state of per-

makes note of another palm that The Bartram garden is now under- bears the largest fruit and the going a process of restoration that largest leaves of any known tree, form, a fitting tribute to the plat of and the leaves 10 feet. Some of the land that has been devoted to gar- trees rise to a height of 100 feet

#### First Concrete Road

The first concrete road of any consequence in the world was constructed in Detroit, and was eleven feet wide by one mile long. The American Magazine, in a study of modern road building, tells the story of his initial experiment. It was fathered by Ed Hines, a Detroit printer and an enthusiastic bicycler, who had become president of the League of American Wheelmen.

#### She Knew Him

He-When do you expect your husband back? She-When I least expect him. While it is sharpest, the natchet i

# GOLF, SAYS WRITER

Golf as played by the average business man is certainly not a recrea- line Presbyterian, tion, Struthers Burt asserts, writing fection being the product of nearly in the Forum. Anyone who has seen a century of effort on the part of weary, and sometimes obese, business the Dutch inhabitants of Java. So men arrive on a train and immedi- wiping them off. You cannot erase a The oldest botanical garden in wonderful are the flowers and plants ately try to kill themselves by two bad shot by a good shot as you can 36-hole games a day will not long the limits of the city of Philadel- acres, is known as "The Garden of cherish the idea that this is pleasure. For the average business man, retired or not, golf is a substitution, not a recreation. It is a substitution for business and-as now played for the most part—is more like business than year, with ceremonies suited to the proached, we are informed, through any other game. It was first made occasion. The opening day was the finest avenue of trees in the popular by a conscience-ridden race, the Scotch-the more placid Dutch, torical nature, and on the second day ing 100 feet overhead and have tall having invented it, promptly abandoned it; and as soon as they were given the chance, the conscience-ridden English and Americans took it up enthusiastically.

You see, golf is the only game exfoundation from which Mr. Bartram that stands about 40 feet high, and tant which combines exercise and at the same time assuages the sense of sin. Not only is the competitive fea-

ture of it underscored and doubled, for you are also always competing against yourself, but there is invariably enough misery attached to the usual game to placate even an old-

Moreover, your sins find you out. They are there, unconcealed, for everyone to look at. And there's no in polo or tennis. Golf is a grand game for those races not yet able to consider painless pleasure as anything but sinful. It is morose, sullen, and gives the impression of being worthwhile-the last a very important consideration to the average man trained to business standards.

#### Page Depression

"This coffee's muddy, Joe," "Yes, probably too weak to stand the strain."-Exchange.

The only thing that beats a good wife is a bad husband.

Sympathy often masks curiosity.



Soviet Republics Soviet Socialist Republic, capital, There are six republics in the Samarkand. Within these republics Union of Soviet Socialist Repblics as there are 31 minor political subdifollows: Russian Socialist Federated visions which are autonomous, hav-Soviet Republic, capital, Moscow; ing their own local soviets. Any White Russian Soviet Socialist Re- member of the union may withdraw public, capital, Minsk; Ukrainian at will. Soviet Socialist Republic, capital,

Soft melodious music can remind Kharkov; Transcaucasian Socialist Federated Soviet Republic, capital, you of moonlight beside the murmur-Tiflis; Turkoman Soviet Socialist ing sea; but that's because it's you-Republic, capital, Askabad; Uzbek not the music.



# **O'NEILL FRONTIER**

but as they approach maturity it takes much longer. A baby chick takes to mash feeding like the "duck to water," but if the pullets approaching maturity have not been fed mash for several months, getting them to eat it readily is as hard as getting an eighteen-year-old boy with a "finicky" appetite to like spinach when he has never eaten it before. The same applies to roosting habits. A normal, healthy, wellfed chick from four to six weeks old takes to roosting by instinct on whatever is available the coop or brooder house, but let the same chicks be kept in a brooder house without roosts until it is four or five months of age and getting it to roost regularly is a job that will try the patience of a saint. Crowding and piling up in a corner with sweating, colds, roup, slow development, and late egg production make up the price a lot of folks pay for failure to put a set of roosts in a brooder house when the chicks first need them. Making good roosts available early not only allows the development of desirable habits in the chicks at the best age but is a real factor in avoiding piling up and smothering-a tragedy that occurs all too often in brooderraised chicks. Whether fright, the going out of the brooder stove fire, or a sudden drop in outside temperature is the excuse for crowding or piling, it is much less serious when all or most of the chicks are in neat rows on roosts than when spread out on the floor. With a properly constructed set of roosts, keeping the brooder house clean is very easy and simple. The best kind of roost is one having a dropping board. This makes for easy cleaning, helps to prevent drafts beneath the chicks and prevents the slow and late roosting chicks from settling down for the night beneath the roosts. Some prefer putting in wire netting such as three-fourths inch mesh hardware cloth. This prevents the chicks from getting underneath the roosts (if properly fitted) and keeps the chicks out of the droppings. A set of roosts satisfactory for the youngest chicks have these requirements: They must be low; at best those nearest to the stove should not be more than six inches from the floor. The roosts should not be sharp; but should be flat on top-one and one-half to three inches wide. They should be well supported and heavy enough not to sag in the middle or otherwise get out of place. They should be close together at the start-one every six inches is good. It appears desirable that they be at least slightly higher at the back or next to the wall than when close to the stove. It appears best to have the roosts extend from wall to wall. A man who culls poul-try for one of the largest hatcheries in the state tells me that when he visits the flocks in the winter months he can guess rather closely the age of the chickens when they began using the roosts. Other things

#### NIGHT PASTURE FOR HORSES

With horses doing a big share of the farm work this year, it will be cheaper and will keep them more comfortable to turn them into pasture on summer nights. A small pasture near the barn is a great convenience for this purpose. The horses cool off during the night and drink water as they need it. Usually, they keep much cleaner than when confined in their stalls, When the horses are turned out, the stables are cleaner and have less flies. There also is less curry-ing to do. The fact is that men work 6, 8 or 12 horses in one beem clean only the shoulders.

### **DEALING WITH FLIES**

In flytime no one looks forward to milking cows. The evening milk-ing, when one is tired and the cows covered with hungry flies, is a test of one's temper. The two kinds of flies that bother cattle most are the stable fly and the horn fly. Both are blood suckers. The stable fly resembles the house fly and has similar breeding habits. The eggs are usually laid in horse manure. Those of the horn fly are laid in freshly dropped cow manure. The eggs of this fly hatch in about 24 hours, those of the stable fly in three to four days. Time between generations is short. Multiplication of progeny is very rapid. The be-gining of fly prevention requires that one reduce breeding flies to a minimum-clean up the manure about the premises. Fly sprays are useful if properly applied. Their effectiveless is of rather short du-ration against hungry hords of flies. It is a good rule to use fly sprays frequently-twice daily-but somewhat sparingly, the latter to avoid injury. The right kind of a sprayer kept in good working order is es-sential to efficient and effective ap-plication of fly spray.

SMALL LITTERS OF PIGS . Three things might be contributed to small litters. The boar used may have supplied male sperm reproductive cells that were low in vitality. The sows may not have been properly feed before and during the breeding season. The sows may represent a strain of breeding that tends to produce small litters. Of these three possible causes of small litters the first two mentioned are nearest to a correct diagnosis of the case. If the boar used on one herd of sows had had also been used on another herd, there would possibly be some opportunity to check his service. In this case if the litters were small from both herds, the evidence would be strong against the boar. The condition of sows at breeding time has a lot to do with the number of female reproductive cells released at heat periods. There can not be a greater number of pigs in the litter than the number of ova released at the heat period from which conception begins. It has been demonstrated beyond reasonable doubt that sows in a rapidly gaining condition for a few weeks before and during breeding season will conceive to larger litters than will extremely thin sows or extremely fat sows or thost on a mere maintenance ration before and during the breeding season.

necks and backs of their horses. Horses turned out at night maintain a fairly neat appearance, even with this little currying.

#### A SPRAYING CAUTION

A spill of chlorate on the barn floor may mean a fire. By all means, wash your clothing and rinse your boots immediately after finishing the spraying job.

#### SILAGE VALUE

One hundred pounds of well matured corn silage contains, on the average, 1.1 pounds digestible pro-tein and 17.7 pounds total digestible nutrients

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MAKE OF Car	TIRE	Fire- stone Old- field Type Cash Price Each	★Spe- cial Brand Mail Order Tire	Fire- stone Old- field Type Cash Price Per Patr	Fire- stone Sen- tinel Type Cash Price Each	-kSpe- cial Brand Mail Order Tire	Fire- stone Sen- tinel Type Cash Price Per Pair	MAKE OF CAR	TIRE	Fire- stone Old- field Type Cash Price Each	★Spe- cial Brand Mail Order Tire	Fire- stane Old- field Type Cash Price Per Palr
Ford	4.40-21	4.98	4.98	9.60	4.35	4.35	8.50	Marquette. Olds'ble. Auburn. Jordan				15.30
Chevrolet	4.50-20	5.60	5.60	10.90	4.78	4.78	9.26	Reo	1	0.15	00	
Ford	4.50-21	5.69	5.69	11.10	4.85	4.85	9.40	Oakland. Peer less. Stud 'b'kr		8.90	8.90	17.30
Ford Chevrolet Whippet	4.75-10	6.65	6.65	12.90	5.68	5.68	11.14	Chry sler. Viking Franklin Hudson	6.00-18			
Erskine Plymo'th	4.75-20	6.75	6.73	13.14	5.79	5.75	11.26	Hup'mbl LaSalle Packard	6.00-20	11.47	11.47	22.30
Chandler DeSoto Dodge Durant Gra'm-P Pontiae		×6.98	6.98	13.60	5.99	5.99	11.66	Stutz Cadillac Lincoln Packard	6.50-20	13.45 15.35	13.45 15.35	25.40
Roosevelt Willys-K Essex Mash	a un la	07.10	7.10	13.80	6.10	6.10	11.90	SIZE	Firestone Oldfield Type Cash Price Each	+Specia Brand M Order Ti	al F all C	ircstone Didfield Type ash Price Per Pair
Essex Nash Olds'ble	1							30x5 32x6 36x6 6.00-20	\$17.95 29.75 32.95 15.25	\$17.9 29.7 32.9 15.2	5	34.90 57.90 63.70 29.90



## COMPARE CONSTRUCTION and QUALITY

	4.75-1	9 Tire	4.50-21 Tire		
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More Weight, pounds	18.00	17.80	17.02	16.10	
More Thickness, inches	.658	.605	.598	.561	
More Non-Skid Depth, inches .	.281	.250	.250	.234	
More Plies Under Tread	6	5	6	5	
Same Width,	5.20	5.20	4.75	4.75	
Same Price	\$6.69	\$6.65	\$4.85	\$4.85	

\*A "Special Brand" tire is made by a manufacturer for distributors such as mail order houses, oil companies and others, under a name that does not identify the tire manufacturer to the public, usually because he builds his "best quality" tires under his own name. Firestone puts his name on EVERY tire he makes.

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