

# The Y DAIRY

PASTURE IS HALF OF FEED PROBLEM

The real value of a good pasture is so little realized that on only a few farms does the pasture play the part that it should in providing the year's feed for dairy cattle and other stock, says W. J. Fraser, dairy farming specialist of the college of agriculture, University of Illinois. A good productive pasture will feed the dairy herd for practically one-half the year and so is entitled to as much consideration as all the other crops combined that make up the winter half of the ration, he pointed out.

"A good pasture not only saves land and labor, but also provides for and stimulates production and has a fine conditioning effect on live stock, especially on milk cows in getting them in shape for the winter's production on barn feeding.

"One-sixteenth of the area of the farms in Illinois is unutilized land and bluegrass is the pasture crop commonly used over this large area. It is a well-known fact that bluegrass gives a low yield of pasture in mid-summer. For this reason the college of agriculture, University of Illinois, conducted a pasture experiment to determine the actual amount of feed received from bluegrass each week throughout the growing season, for four consecutive years. The result showed that bluegrass produced only about one-seventh as much feed a year as did the same area in corn or alfalfa; only one-half as much as oats, and one-fourth as much as red clover.

"The low yield is not the only trouble with bluegrass pasture. The worst of it is, it turns up its toes and stops growing entirely when the rains cease, because it is shallow rooted. And this drought usually comes when there is the greatest need of feed, because of the excessive heat of mid-summer and the tortuous flies.

"One of the four years it would have required nine and one-half acres of bluegrass pasture to support a cow after June 1. Two years there were periods of three and a half to four months when bluegrass pasture was practically worthless as a crop to produce feed for stock, as it would have required 30 acres a cow to furnish barely sufficient feed. Now it is easily seen that when pasture is this poor it ceases to be a pasture and becomes merely an exercising ground.

"These tests and common experience show that bluegrass falls more than half the season and falls at the busiest time of the year, and when stock need the feed the most. The most certain thing about bluegrass pasture is its uncertainty, and the loss that comes to the whole herd from lack of supplying sufficient feed during the hot dry weather of mid-summer. The loss thus sustained in the year is almost beyond comprehension. It may easily amount to the difference between success and failure to the dairy farmer.

"The cow's requirement for feed is continuous throughout the summer, and in order to solve the pasture problem economically we must have some pasture crop that will furnish an ample and continuous supply of feed for the six summer months. The results on eighty-one dairy farms in Illinois show that three-fourths of an acre of sweet clover pasture is enough to support a cow during the six summer months. This is the average efficiency of sweet clover pasture, not in a few exceptional cases, but the common experience in all sections of the state and under all the varying conditions on these farms. The reason that sweet clover continues to grow in dry weather is because it has a large and deep root system, growing from four to six or more feet deep, while most bluegrass roots are in the top six inches of the soil.

"To show that cows will produce well on sweet clover pasture, it is only necessary to mention that I have had a cow on my own farm that produced 54 pounds of milk a day without grain. I have seen four other cows that produced between 45 and 75 pounds of milk a day on sweet clover pasture alone without grain."

## Keep Cows Clean

Custom has long decreed that horses should be kept clean. The same custom should include the dairy cows. The body of the dairy cow, especially that part of the body, flanks and udder which are above the milk pail, may be the source of much of the contamination in milk. The best method of preventing contamination is to have the cows clean at milking time. It is much more important that the cows be properly groomed than the horse.

## Quality Dairy Products

Prof. H. W. Gregory, of the dairy department, Purdue university, is responsible for the statement that one of the largest and oldest butter companies in Boston is to begin immediately to feature pasteurized butter from tuberculin-tested herds. He states that this is an indication of the trend in the industry, and that if dairymen in the Middle West are to avoid having their product discriminated against, they must use care in putting out only a high grade product.

# FARM POULTRY

IDEAL HENHOUSE LASTS ALL YEAR

An ideal henhouse is one that makes all the rest of the year as much like spring as possible. It is pointed out in a circular, "Housing Farm Poultry," which the college of agriculture, University of Illinois, has published for interested flock owners and farmers.

Climatic conditions during the spring months are, of course, favorable to egg production, and it is from a study of them that much of the working basis for practical poultry-house construction is obtained, the circular explains. Any type of construction that will prevent excessive heat in summer and avoid extreme cold in winter will be favorable to egg production, the publication adds.

Every detail of construction, except such things as cost, convenience and appearance, should be considered from the standpoint of its possible effect on the health, comfort and egg production of the flock, the circular continues. All this means that there is no one best house for all conditions. Most of the essential requirements can be provided in more than one way, so that there is an opportunity for the flock owner to exercise his personal preference and choice in various respects without seriously affecting the practicability of the house.

In so far as location is concerned, the major factors to be considered are good soil and air drainage, southern exposure, protection from prevailing winds in winter and convenience in the matter of daily care and management. The last point may be sacrificed under some conditions if by so doing the factors which are essential to the comfort and health of the flock can be more fully secured.

Sanitation cannot be too strongly stressed, the authors of the circular point out. In this connection it is desirable to arrange the poultry house in such a way that the surrounding land may be cultivated and cropped. A double yarding system can then be provided, without excessive expense, so that half the range may be in crops every year. This practice will cut down losses from parasites and diseases.

Taking up the question of the size of the house, the circular points out that crowding hens too closely, especially during the winter months, when they must be kept indoors a large part of the time, seldom pays. A safe rule to follow in building a poultry house is to allow four square feet of floor space to each hen, although when 250 hens or more run together in one flock, less floor space can be allowed for each hen.

One of the problems that must be faced constantly in the management of poultry is that of keeping the house dry. Hens have no sweat glands and since little moisture is excreted in the droppings the only way the hen can get rid of any considerable amount of moisture is through the lungs. A great deal of moisture is thus given off into the air of the poultry house. The result is a tendency for the litter to become damp quickly. It is essential, therefore, that the floor of the house be built in such a way that no additional floor moisture can accumulate through absorption from the ground below.

## Start Chicks Right by Feeding Them Properly

For the first 60 hours of a chick's life, perhaps the best thing that can be done is to provide a warm, dark place with plenty of ventilation. When the chicks are hatched they retain a large portion of the yolk in their bodies in an unabsorbed form. Nature provides this for food during the first three days of the chick's life. If the chicks are given food immediately, a large portion of this yolk will not be absorbed and thus cause trouble later. If chicks are left where it is light, they will be restless and will pick at droppings, which is apt to spread disease. If the chicks are kept quiet they will absorb the yolk and the digestive tract will finish its development, thereby preparing it for the first food, which should come at from 60 to 70 hours after hatching.

## Breathing Room for Hens

It is estimated that 75 per cent of the people who keep poultry crowd too many birds into their poultry houses. Egg production is thus disregarded and proper development of younger birds is prevented. Whenever any disease breaks out in the flock, overcrowding helps spread the disease more rapidly. Cull the birds so that the flock will fit the house. If you don't do it, nature may when the house is crowded—and you can't sell the dead birds.

## Dry Mash for Hens

Have the dry mash before the poultry flock all the time. Feed the scratch or hard grain in a litter morning and night, giving just what they will clean up. Feed the greens at noon. If you have time, and it will pay you well, it is well to feed once a day a good, moist or fermented mash, but never feed all they want of it; give just what they will clean up in 15 minutes. If they have all they want, they will fill up on it, neglect the dry mash and get fat.

# THE WORLD'S GREAT EVENTS

ALBERT PAYSON TERHUNE

## The Sepoy Mutiny

A FEW pots of grease cost many thousand lives and nearly \$200,000,000 in India, about half a century ago, besides inaugurating one of the bloodiest tragedies ever enacted.

India's history, down to the Seventeenth century, is largely a chronicle of barbarism, internecine wars, invasions and Oriental intrigue, with a growing European influence in the most accessible districts. The vast country was teeming with wealth of a sort that attracted Europe's covetous eye. The Portuguese won a commercial foothold there, only to be driven from power by the Dutch, who in time were crowded out by English and French. Last of all, the French were routed by the English, until, by 1769, England practically ruled India. Clive, Warren Hastings, Lord Cornwallis and other governors brought the whole territory either directly or indirectly under British sway.

The natives were untrustworthy. The Indian potentates whose power was checked and a horde of fanatics whose religious rites had been curtailed by the foreign rule were ever stirring up revolt against their new masters. Hence it was necessary to maintain a large army in India. England could not spare a sufficient force of white men for the purpose, so organized native regiments, under British officers, and trained them along European lines. These native troops were called Sepoys (from the Persian word "sipahi," signifying "soldier"), and proved splendidly efficient in repeated campaigns. Thus, by 1856, all India seemed safe and moderately content under British domination. True, there were countless fanatics and unscrupulous native rulers who waited only the opportunity to rebel; but for a long time they lacked the chance. That same "chance" came about in an unforeseen fashion. Like most misfortunes of this sort, it was brought about and then augmented by blunders on the part of the British government.

Several English regiments had been withdrawn from northern and central India to serve in the Crimean war. Others were away in Burma. These departures left barely eighteen white regiments available for action. Several of the most important arsenals and garrisons were in charge of the Sepoys. At about this time the Enfield rifle was adopted for use among the Sepoys. In loading the rifle it was necessary to bite off the end of the cartridges. These cartridges were coated with grease. They were also packed in glazed paper. The foregoing facts seem mere trifles, yet they brought on a bloody insurrection.

The Sepoy regiments were made up of Mahometans and Buddhists. As the English very well knew, the Buddhists and Mahometans alike are forbidden by the most sacred laws of their religion from eating or even handling pork. At once it was claimed by native rulers, agitators and fanatics that the fat of swine was used in greasing the cartridges and glazing the paper. To this was added the rumor that the government was seeking to force the native troops to embrace Christianity, by making them violate their own creed. At once fanaticism blazed into furious revolt. A devout Christian could not be more indignant at being commanded to stamp on the crucifix than were these Moslem and Hindu devotees at the order to defile their souls by handling and tasting pork-fat. Several Sepoy regiments refused to receive the cartridges, and even rebelled. They were disbanded, and the government tardily "called in" the hated articles of ammunition.

On May 2, 1857, a cavalry regiment was ordered, by error, to bite the greased cartridges. In loading their guns. They refused and were forcibly disarmed. This was the signal for general revolt. At Meerut, a few miles northeast of Delhi, the Sepoys and townsfolk rose together, massacred the British garrison and white residents and marched to Delhi. They captured the latter city and made it the headquarters of the mutiny. The whole Bengal presidency revolted and Europeans were massacred wholesale amid the most unspeakable outrages. Nana Sahib, maharajah of Bithur, loudly proclaimed his loyalty to the government, but at the first opportunity went over to the mutineers. He besieged Cawnpore. On his solemn promise of safe-conduct the garrison at last surrendered. As soon as they were at his mercy he murdered them, massacring 210 English women and children who had sought refuge in the town. Lucknow and other cities garrisoned by the English were besieged, and throughout northern and central India British rule was nearly extinct.

The government at last awoke to the peril. Armies under Havelock, Outram, Campbell and other generals were sent to stamp out the mutiny. Lucknow was relieved when at the last gasp, and within a year the final sparks of insurrection were quenched. Then the British wreaked fearful vengeance on their beaten foes.

The mutiny brought about a radical change in England's mode of ruling her East Indian possessions. In 1876 Benjamin Disraeli, premier of Great Britain, framed the "Royal Titles Act," making Queen Victoria empress of India, and, incidentally, securing for himself the title of earl of Beaconsfield by way of reward.

# Warsaw Since the War



Polish Peasant Woman at Market.

(Prepared by the National Geographic Society, Washington, D. C.)

THE Poland of today still shows the effects of the World War which freed the country of political dependence on Russia. This is especially marked in Warsaw, the capital. The porter who meets one at the train was but yesterday a millionaire. Fantastic figures gave birth to fantastic habits. Until recently no one asked for change. With a mass of brain-cluttering zeros, it was easier to deal in round numbers. Then came the zloty, worth a gold franc, twenty cents, or 1,800,000 Polish marks.

There were no zeros to toss around and many travelers, likewise reduced from the ranks of millionaires, prefer to carry their own bags; hence there are three porters for every job. Each must live from the proceeds of a day, two-thirds of which is taken up in having his services refused.

As a droszky rolls up the blue-coated driver in a leather cap hands his number to a policeman, who slips it into one end of a broken ring. A duplicate number hangs between the shoulder blades of the cabbie. When an arriving passenger wants a carriage a number is slipped off the other end and the driver of that number wins the fare, according to the first-come-first-to-serve principle.

Occasionally, when demand for droszki exceeds supply, a number never gets onto the ring, and instead of a lot of tags representing idle carriages there is a queue of potential patrons.

At the hotel a long succession of military heels, relief committee boots and suit case salesman's shoes has reduced to paper thinness the carpets in which one once waded through luxury. Exasperated guests have killed flies against the wall paper. Careless bacchantes cooling their brows have broken the bottoms out of the wash-basins. After years of war and depreciation, funds must be found to restore the hotel to its former state. On top of the necessarily high price the municipality imposes an 80 per cent surtax, plus a dollar for a passport inspection each time one returns to town.

Warsaw Now Dark and Dull. Beautiful parks and gardens surrounded by dull, gray, depressing streets are the first impressions which Warsaw, the capital city, makes upon the visitor.

The buildings are huge, impressive because of their size but not picturesque. Coupled with heaviness of construction there is a somberness whose psychological effect is disheartening. There is nothing depressing about a country scene, even on a night without a moon; but in a city, with the sky shut out, darkness weighs upon the heart.

From six to eight every evening young Warsaw parades the thoroughfares between Theater square and the Saxon garden. Polish men are supposedly vivacious. Polish women are reputed beautiful. For want of adequate lighting, what might be a brilliant concourse is a funereal gathering wading through such darkness as would ruin Times square in a single month.

The Poles are said to be the greatest dancers in the world, but the traveler seeking something peculiarly Polish in a public place finds an oily-haired banjoist pursuing a couple about the polished floor and a negro trap drummer tossing his sticks in the air or coaxing a peculiar rattle from his drums with a wire fly-swatter.

Many Ornate Churches. The Polish capital has many churches, massive and ornate, baroque outside and rococo within, full of memorials to those Polish exiles who did their work on foreign soil and to whom, under Russian rule, no public monuments could be raised.

In the Church of the Holy Ghost, in accordance with the great composer's wish, the heart of Frederic Chopin is buried. Business men enter with brief

cases under their arms and sit or kneel beside peasant women with milk cans or vegetables protruding from their shawls.

Chic Polish women slide out past some stooping peasant in top boots. On the broad front steps old men and women in rags, a mother with a baby at her breast, await the alms inspired by brief communion with oneself or God.

The streets of the capital are humanized by news stands with papers in several languages, excellent illustrated journals, some innocent sayings and much nudity in silk stockings. With the recent deaths of Joseph Conrad and Henryk Sienkiewicz and the Nobel award to Ladislas Reymont's "The Peasants," one might expect a considerable demand for the works of these Polish literary lions, but recently translations of Henry Ford's "My Life and Work," Morand's "Lewis and Trene" and a Claude Farrere novel were among the best sellers.

The Warsaw cigarette stand consists of a box which can be suspended from the shoulders and carried to a location chosen for the number of potential buyers who pass at any given hour. Brighter still are the soft-drink or refreshment booths with pink and yellow shirps, red and russet apples, shiny rolls of chocolate and various types of breadstuffs.

Scenes in the Markets. There is a certain informality about the markets of Warsaw. The traffic in vegetables and flowers, chaplets of dried mushrooms, milk and eggs, live and dressed poultry, walnuts pears and enormous English walnuts overflows from the two market halls into the streets and courtyards on all sides.

The practice of selling live poultry in a county where cold storage consists of a long winter makes for a more even market. If, after having twenty city women finger over her pet gander, the country woman finds no sale for him, a twist of the wrist ties him up in her shawl and back home she goes.

Near the food markets the fronts of several buildings are draped with piece goods, and across the road is a dimly lighted shambles, where the shoddiest of woven goods, comfortless underwear, cardboard suit cases and ugly finery are sold to those too poor to profit from buying honest goods.

North of these markets, watched over by bulbous-bodied country women with cheery, honest faces, one comes to the Nalewki, where Yiddish is the native jargon.

The Nalewki differs from Polish Warsaw in that its buildings have no fine facades, but two slovenly backs. Between it and the Vistula there remains the Old Town square, once the haunt of fashion. Some of the fine carved doorways still hint of ancient glories. The row of medieval houses is, in its general aspect, as fine as anything Warsaw can offer. Hidden away from casual gaze are narrow entrance halls and staircases that once gleamed with the beauty of ivory shoulders, and where natty officers, emerging from their heavy overcoats, disclosed such a lancer's uniform as made a callow youth look like a man of iron and a breaker of hearts.

There is nothing distinctive about the Warsaw skyline. Until recently the dominating features of the silhouette were the five gilt domes and 240-foot campanile of the Russian church. Within the last three years this has been torn down, carefully and expensively.

Warsaw's citadel, with its over-worked execution grounds and infamous Pavilion X, was built to punish the Poles for the November insurrection of 1830. Pavilion X has been torn down. In it was the cell where Pilsudski was imprisoned.

From the citadel walls one looks down upon the Vistula, whose basin embraces most of Poland and on whose banks are more than half of the nation's cities. Sadly neglected until now, it may become as important a waterway as the Rhine or the Seine.

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## Have System of Levels to Reveal Altitude

Altitudes are obtained by a system of levels for the taking of which one requires considerable engineering knowledge and a set of instruments. There is also a method of estimating altitudes by means of tables worked out on the basis of the reading of the barometer. Differences of temperature affect the density of the air, and consequently exert a certain influence upon an aneroid barometer. This influence has to be taken into account when differences of altitude are being determined by the aid of this instrument. The table, showing allowances that must be made for temperature, most generally used is that prepared by Professor Airy, late astronomer royal of Great Britain, in which 31 inches of pressure represent the zero of altitude, assuming that the temperature is 50 degrees Fahrenheit.

## Women's Employment

Among the many trades women have taken up for a livelihood in Great Britain is that of breeding goldfish. An Irish girl gets a living by breeding goats; Lady Rachel Byng breeds Angora rabbits. There are several women "masters of fox-hounds," a woman has chosen "tea tasting" for a living, another is a cattle judge and one young lady puts in her whole time as a master of harriers. A college girl has become "a scribe and heraldic illuminator," two others jointly earn a living by jam making on a large scale, two sisters run a small upholstery business, another is a builders' merchant.

## Getting Sleepy

Mrs. Downing—Why are you bathing your head in cold water? Her Husband—To keep awake. I've called the doctor for my insomnia and I'll feel like a fool if I'm asleep when he gets here.

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