

OF INTEREST TO FARMERS

DEVELOPING THE HEIFER

Not long ago, in looking over our growing heifers, a man who places with the two or three leaders in breeds' promotion work in America, said: "Keep your growing heifers looking so no one else wants them." Now, he did not mean that heifers should not be well fed, well grown and thrifty; but he — using the extreme, as many do, to drive home a truth of the middle ground — was warning against this bloom that so many keep on their heifers. We begin to wear our heifers soon after the fourth month, and have the job done by the fifth. Gradually we decrease the milk and slowly bring the grain up. By the time the heifers are weaned they are consuming one and a half pounds of grain at a feed, three times per day, plus their alfalfa hay. So we begin to introduce a little straight dried beet pulp into the ration, until we have them consuming three pounds of this in the day. As the heifers grow older and stronger, the grain is slowly decreased and the pulp increased until we have the heifers eating dried pulp entirely. The grain mixture is the same as for the cows — corn, wheat, barley, oats, and lightened with bran and dried beet pulp. However, no high-protein concentrate is fed. Some may be necessary where alfalfa or other good legume hay is not available. In England, it has been found that as little as a quarter of a pound per day is sufficient for thriving heifers, where legume hay is not available. Alfalfa is the backbone of the ration for those growing heifers from five months on to 17, when we breed them. All that they will clean up without waste is given to them. This runs from five to ten pounds, according to the age. The best heifers are made in an exercise lot, with running water and shade if possible for summer, and a sheltered shed for winter, and with three regulated feeds per day. If pasture is to be had beyond the needs of the milk cows, let the heifers graze separately; but, to insure sufficient nutrients for these fast-growing animals, until 12 to 14 months are reached, give what feed will be cleaned up morning and evening.

MAMMOTH MELONS

One melon grower, in 1931 raised 312 watermelons that weighed above 170 pounds each. The largest melon weighed 183 pounds, and took prizes at every state fair in which it was exhibited. This grower made a specialty of raising large melons. In 1930 he realized a gross sum of \$5,230 from two acres of melons. In addition to size of the melons, in flavor was most excellent, but these men did not use ordinary methods of marketing. They loaded big trucks with their fruits and visited city after city where they found a ready retail market. He has reduced watermelon raising to an exact science. Selected seeds are planted in the usual way, soon after danger of frost is past. Cultivation is done as ordinarily practiced by any good melon raiser. After melons are formed on the vines all but one selected melon is taken from a vine and blooms are pinched off as they appear. All melons and blooms are taken off an adjacent vine. The bare vine is then grafted onto the vine bearing the one melon. Any good grafter can do this. The one melon gets thereby the strength of two vines. Then as July and August suns bear down upon the melons, a shade of grass, straw, paper or brush is put over each melon; this prevents the melon ripening too soon, delays maturity so that larger growth may be had. About the first of September the shade is taken off and the melons are ripe for market. Rind is thin, melon meat is firm, juicy and sweet.

BEST AGE FOR FRESHENING

It is generally presumed that dairy heifers should be bred to freshen with the first calf when they are 24 to 28 months old. Jerseys, the earliest maturing breed, are usually bred so they will freshen for the first time at the earlier age given above. The Guernseys follow in about two months, while Holsteins and Ayrshires are usually delayed to about 28 months and in some cases Brown Swisses are delayed longer. Various investigators have studied the question of the best age for first freshening, but one agricultural experiment station has given the most recent and conclusive answers to the problem. It established the fact that production during the first lactation increases directly with the age of the animal at that first freshening up to the maximum at 30 months of age and he emphasized that nothing is accomplished by a delay beyond 30 months. It was further found that most efficient production — as measured by the utilization of nutrients — was obtained when the heifers freshened first at 20 to 24 months. Freshening at an age earlier than this has one advantage in that it shortens the unproductive period in a heifer's life — it makes her a producer at an earlier date — but it sacrifices size, which in turn reduces her yield. When first calving is delayed till 30 months the heifers will furnish maximum

NEW PEA DEVELOPED

A new, early, high yielding and 100 per cent wilt-resistant canning pea of high quality has been developed. This new variety is called the Wisconsin Early Sweet, and was released to the seed industry last year. In a commercial field trial it yielded 1,728 pounds per acre when harvested and canned on June 25th of last year. The Alaska variety, harvested and canned on the same date, yielded 938 pounds. One other advantage in addition to resistance to wilt of the Wisconsin Early Sweet

yields during that first lactation, but their productive life has been reduced. They have remained unproductive too long. A few dairymen will find the younger ages of 20 to 24 months for first freshening best suited to their needs, especially with certain cows. It would seem that any age younger than 20 months should always be avoided. Special caution must be taken to prevent accidental breeding. Then any deliberate effort by the owner to bring his heifers into production at a too early age will accomplish detrimental effects that outweigh the benefits.

LIMING SOILS

The soybean is a legume, valued on many farms because of its ability to grow and produce a fair crop on soils which are acid in reaction. Alfalfa, sweet clover and red clover will not grow on acid soils, unless the soils are first given a dressing of limestone, varying from two to five tons per acre, according to the amount of acidity which is present. Yet on such soils, soybeans will produce a grain or a hay crop without liming. This, however, does not mean that the addition of limestone to a soil which is acid will not prove beneficial to a soybean crop. Soybeans do better, grow to a larger height, produce more grain and forage, containing a higher percentage of protein, on a soil that is neutral in reaction than on a soil that is acid. This was clearly demonstrated in Clarke county, Iowa, last year, in a test made on a Grundy silt loam soil by the soils department of Iowa State College. In the same test, it was also demonstrated that inoculated seed produced a larger yield on acid soils, as well as on limed acid soils, but the best yields were obtained on limed soil with inoculated seed. A series of plots were dressed with high grade limestone at the rate of one to six tons per acre, and each plot was divided into halves. On one-half of each of these plots, inoculated soybeans were seeded, while on the other half soybeans without inoculation were seeded. Two plots were left without liming, to serve as check plots. The plots that were limed and the seed inoculated produced just about twice as much hay per acre, and almost three times as much seed, as those that were not limed and the seed not inoculated. Not only were these higher yields of hay and beans obtained from the inoculated seed and limed ground, but the protein content of these products was also considerably increased. The great importance of seed inoculation, whether seeded on acid or limed soil, was also demonstrated, and it was clearly shown that when a man can not lime his acid soil for soybeans, he should, by all means, always inoculate the seed.

YOUNG CALVES NEED WATER

Some dairymen hold the belief that young calves which are getting considerable quantities of liquid milk do not need water. In fact, some of them believe that the calves will drink no water if it is offered to them. In the light of these beliefs, it seems important to know the facts. One experiment station carried on some experiments which are intended to determine whether it is necessary to water calves. In these tests two groups of calves were evenly divided. One group got 14 pounds of skim milk daily, but no water. The other group received the same check ration, including the milk, and were given twice a day all the water they wanted in addition to the milk. The calves in the group getting water drank about as much water as they did of milk. They gained an average of 1.80 pounds per head daily. In contrast, the calves which got no water gained only 1.35 pounds. The calves which got water had better appetites, and hence consumed more concentrates and hay than the other lot. The hay consumption was nearly twice as great and the concentrate consumption about a third more when water was allowed. It seems evident from the foregoing that calves do need water — or at least after the first few weeks of their lives.

BLOOD SPOTS IN EGGS

A small blood spot in an egg does not indicate that the egg is stale or bad, says the United States Department of Agriculture. Blood spots are found occasionally in fresh eggs, although in the best grades of eggs that are candied and sold on the markets. Eggs from farm flocks are not so likely to contain blood spots as those from commercial flocks that are fed for maximum production. The seasons when blood spots the most likely to occur are late spring, when the hens are laying heavily, and in the fall, when the pullets begin to lay. Poultrymen who desire to remove all questionable eggs from those marketed should candle their entire production, and use such eggs at home. Less forcing for egg production and liberal feeding of green feed will tend to reduce the formation of blood spots in eggs.

is its earliness, which lessens possibilities of injury from dry weather and from aphids. It was also found to have a very high quality when canned, superior to Alaska and fully equal to the Perfection variety. After several years of plant-breeding work, a new 100 per cent wilt-resistant pea of the type of the Perfection variety has been produced. Canning experiments on a small scale indicate that this new variety possesses good canning quality. More extensive comparative canning trials with this new strain are being made this summer.

Highway Without a Rival

Traveler in California Can Journey for Many Miles Beneath Majestic Redwood Trees That Have Flourished for Thousands of Years.

I doubt if there is any highway in the world to match the beauty of the great Redwood highway which California has built through the mountains and along the sea, up toward her Oregon frontier. For two hundred miles you travel, most of the time, beneath redwoods which have the vertical majesty of the Empire State building's columns and a towering green dignity and simplicity which no man-made building can rival. They are immense; the eye takes time to adjust to their height. Sometimes the rugged trunks stretch skyward for two hundred feet without a branch; sometimes the branches almost touch the ground. And they are abundant; there are no lone trees, relics of bygone age, but whole forests of giants, with few trees but redwood saplings in their shade. The "Founders' Tree" on the Dyerville flats, 364 feet high, labeled "the world's tallest known tree," seems little taller than its neighbors. That "Founders' Tree," dedicated to the founders of the Save-the-Redwoods league—Madison Grant, John C. Merriam and Henry Fairfield Osborn, two of them New Yorkers and one a citizen of Washington, D. C.—hints part of the romance behind the chain of state redwood parks. Driving today through that chain of giant groves, you have no sense of a mighty race in peril of destruction; you feel only that redwoods have flourished her for thousands of years and still flourish. But there was a time when logging was proceeding at such a pace that it seemed doubtful whether coming generations would ever know what California's—and America's—biggest living things had been. The Save-the-Redwoods league roused the nation so thoroughly that

even along the Klamath river, where the mountain walls are solid with redwood and the river is full of dead redwood snags, I could hardly bring myself to feel that the Indians, using redwood for fuel, were less than desecrators. And the national bank and "movie" house at Scotia, built as imitation Greek temples with solid redwood logs for columns seem a cruel waste. The Scotsmen, of course, had merely used the cheapest and most abundant wood of their neighborhood. A few of the best groves, even directly beside the Redwood highway, are still in private hands, and some day may yet be sacrificed to the value of board feet of lumber. But most of these groves are state parks, saved, unless from fire, forever. You pass through the Lane grove, the Mather grove, the Williams grove, and other groves dedicated to heroes of the long fight, and finally even through the California-State-Federation-of-Women's-Clubs and the Garden-Clubs-of-America groves, dedicated to other groups of warriors. Such names at first seem ludicrous; they are, of course, no sillier than the Mobiloil bay which Sir Hubert Wilkins dedicated to a patron of his Antarctic flights or the Charles V. Bob mountains which Admiral Byrd first dedicated to a doubtful benefactor, then erased from his maps. They are close kin to Virginia, Carolina and Georgia names of our Atlantic coast. Age lends dignity to the most violent eccentricities of grateful nomenclature—when it does not simply forget them. The big trees lead the mind back into the prehistoric past of California. The giants were giants before Columbus sighted American land; some of them were titans when

Caesar ruled Rome. For the redwood begins life violently, then takes its time. A fifty-year-old tree is as big as an eastern veteran; after its second century the redwood grows slowly, and the tree which may be twenty-five hundred years old today seems little vaster from the base than a tree a thousand years old junior. The tall ferns, the oxalis and the little star flower, and the flesh-colored western azalea and pink rhododendron which peek out from beneath the big trees along the Klamath river cannot be much different from the ferns and forest flowers and shrubs which have been opening, to the morning dews of California from time immemorial. But beyond their own shade the big trees look out on a changed prospect. The Yurok Indians still cut redwood to make the dugout canoes by which they still

travel along their peaceful river. But they are fewer than they were; and the chug-chug of white men's motorboats begins to be heard, even up-river, in fishing season. Every year the craze for good roads sends the long white fingers of machine civilization further and further into what has remained, deep into the Twentieth century, the wild country of northern California. Sometimes I think that those groves of redwoods, dedicated to the founders and the money-raisers, as they look down on the long streams of motor cars that wind along the new Redwood highway, must feel lost and lonely. Where does a redwood fit in a world of stream-lined cars and managed currencies and international balances of trade?—Lewis Gannett, in the New York Herald Tribune.

Freak Thunder Storm Made Weird Spectacle

In the log of the British steamer Moravian, Capt. A. Simpson described a thunder storm on December 30, 1902, just within range of Cape Verde lighthouse. At 1:30 a. m., a warm puff of dust-laden wind came off the African shore. Lightning, at first distant on the northeast horizon, became almost continuous, with loud thunder. All the stars were visible; only upper clouds, no cumulus, in the sky. Captain Simpson had never before experienced a severe thunder storm without cloud. Charles Fitzhugh Talman, who describes this freak thunder storm in his Science Service feature "Why the Weather?" goes on: "For fully an hour the sky was one blaze of lightning, and wire ropes, mastsheads, yardarms, derrick ends, etc. were lighted up. All the stays seemed to have glow lamps three to four feet apart, and the mastsheads and yardarms a bright light at their extremities. "The most remarkable part of the phenomenon was the extraordinary sound emitted throughout. It was, says the log, exactly like the noise

of the sparks from the carbons of an arc lamp; or as if several thousands of candelas had taken up their quarters in the rigging; or the crackling of burning grass or twigs. "This noise was not local near the bridge, but the officers reported it all over the ship, even in the neighborhood of the noisy steering gear." —Literary Digest. Doomsday The end of the world is in sight, according to the inhabitants of Pitcairn island, and they are making no provision for the future, says the Montreal Herald. They are not planting young coconuts this year nor storing up anything for the future. The 193 people of the island are the descendants of English sailors who mutinied on the warship Bounty in 1790 and Tahitian women. Because of their isolation in mid-Pacific, the islanders are self-supporting. Coconuts and other fruits brought to the island by the crew of the Bounty are still growing there. Some of the agricultural implements still used were made from the iron of the Bounty. Visitors are not allowed to smoke there. Neither are they permitted to drink alcohol or wear shorts.

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Ford Chev'lt 4.75-19	6.70	Ford Chev'lt 5.25-18	7.55	Stude'r 5.50-18	10.15
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