

Dairying on Five Acres

HOW many cows could be successfully maintained on five acres of land through intensive crop rotation is a question governed entirely by natural conditions and the degree of efficiency and thoroughness applied through individual effort. Rye, oats, alfalfa, field peas, forage corn, clover, alfalfa, vetch; mangel wurtzels, kale, sugar beets and carrots are all good soiling crops if adapted to soil and climate.

Alfalfa, because of the high percentage of nutrients it contains, is an excellent soiling crop. Add to this, its economic value as a soiling plant, it being possible to produce four or five crops in rotation during the soiling season, it is evident that it is one of the most valuable of the grasses for soiling purposes. Naturally with a succession of growing crops for the maintenance of a dairy herd there would be at times greater quantities of food than the herd would require. Some of the surplus food could be profitably fed to a pen of hogs, and the balance put into a silo for winter use.

Some years ago an experimentation was made in the Dungeness valley to ascertain what could be done in the economic maintenance of a dairy herd on a small plot of land through soiling methods. The plot used contained an acre and three-quarters of land. The soil was rich alluvial river bottom with abundant moisture at all seasons of the year. The experimentation was

made under the personal supervision of an experienced dairyman who knew what had been accomplished by dairymen in Denmark and Holland in the maintenance of dairy herds through rotation of soiling crops. The plot was divided into a dozen or more subdivisions each of which was planted to grasses, grains and vegetables. The attempt which was successful, was made to maintain a herd of sixteen dairy cows in full flow of milk on the successive crops grown on the acre and three-quarters for a period of four months. The herd was stall fed. The entire plot was kept constantly successively planted to a rotation of crops throughout the demonstration period. Referring to the remarkable demonstration Mr. Wall, under whose supervision it was prosecuted, declared that the dairymen of western Washington did not realize the tremendous possibilities before them through soiling methods. The soiling crops used in the experimentation were rye, oats, corn, field peas, mangels, carrots, beets and kale. Some years ago the federal department of agriculture in one of its publications referred to a remarkable achievement in intensive farming by a Pennsylvania farmer on a fifteen acre farm. The land was only of average fertility, yet by intensively utilizing every inch of soil this farmer maintained the year round thirty-four head of cattle, a team of horses, pigs and a large flock of chickens.

Stallions In Europe

IN ALL FOREIGN countries noted for one or more pure breeds of horses, practically no "scrub," "grade," or non-registered stallions are used for public service, and some of the foreign governments prohibit the use of such horses.

The French government for over 100 years has maintained stables of carefully selected, sound, purebred stallions for breeding purposes. The best stallions in Europe are annually chosen for use in these studs, and since 1885 all stallions not coming within special classes have been excluded from public service. The classes referred to are selected by government veterinarians, who inspect all horses and grade them as follows: "Subsidized" class, comprising stallions of a certain standard and for each of which a cash bonus of from \$60 to \$100 per year is paid to the owner to keep the animal in the country for use by owners of mares; "Authorized" class, comprising horses of slightly lower quality that are authorized, after passing inspection, by a card certifying them as recommended by the government for use as sires; "Approved" class, comprising a few horses permitted to stand for service, but not granted a bonus or recommendation card.

In Belgium the government has, since 1850, maintained a great horse-breeding establishment and promotes the breeding of purebred Belgian draft horses by an annual grant of \$5,000 to the official draft horse registration society, and an annual appropriation of \$70,000 to encourage the horse breeding industry of the country. Liberal prizes are awarded throughout the country; stallions are officially examined by government experts, and both approved stallions and mares are granted "maintenance" bounties to retain them in Belgium. Under such auspices horse breeding is making wonderful progress and only purebred stallions are in use for service.

In Germany government supervision of horse breeding has obtained for centuries and today is similar to that in vogue in Belgium, it having been required by law "that no permits should be issued authorizing the use of the stallions, unless they passed a satisfactory government inspection." At the present time both the government and agricultural societies promote intelligent horse breeding. Prizes are awarded for animals of special merit, and such animals must remain in the country for a specified time. Stallion shows have been held for many years at Aurich in East Friesland. Prizes for

brood mares are awarded by the government.

The government of Austria conducts a somewhat similar supervision, and large sums of money are devoted to the horse breeding industry each year.

In Great Britain practically all the farmers recognize the importance of using purebred sires and only such are used in the districts whence come the well known breeds of horses.

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