

# HEREDITARY TENDENCIES OF WELL-BRED COLTS

While Not Born Diseased, They Are More Liable to Develop Unsoundness of Either Parent.

In breeding animals certain diseases are termed "hereditary" in that experience has proved that the sire or dam affected with any one of such diseases is liable to transmit or convey to the offspring a tendency, susceptibility or predisposition to contract or develop a like disease. The foal of unsound parentage may not come into the world diseased, but it inherits a predisposition to disease which will be likely to appear as an actuality when the animal, at any age or stage of its existence, is exposed to influences, circumstances or conditions favorable to the development or cause of such a disease.

For example the colt from a "heavy" mare does not come into the world afflicted with "heaves" but it inherits the gluttonous appetite characteristic of animals affected with this disease and, in addition, a possible weakness of the digestive organs and lungs due to like weakness of those organs in the affected parent. If a horse, with such a hereditary predisposition is allowed to eat all the coarse, bulky, in-nutritious or dusty hay or fodder it cares for and, at the same time, is made to work hard, while its organs are distended abnormally, it will be likely in time to develop heaves.

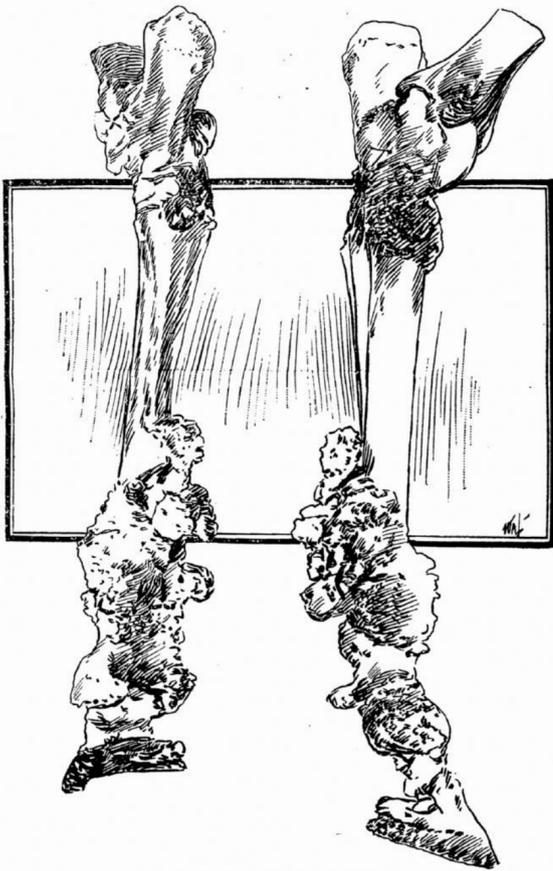
A horse not born with the predisposition referred to may, possibly be exposed to exactly the same conditions yet not develop heaves. "One is taken and the other left." In a stable containing a large number of horses one or two may develop heaves while the others escape, although fed and worked in the same way. We should avoid producing horses having such

such as colt distemper (strangles), influenza, or weakness from worms or malarial environment may bring it into evidence. It is only by breeding from stallions and mares having perfectly sound eyes that we can reasonably expect to produce horses free from hereditary predisposition to eye disease and therefore unlikely to suffer from such disease.

Carry out this idea as regards all other diseases set down as hereditary. The "spavined" sire or dam does not necessarily produce offspring actually affected with spavin but susceptibility to the trouble is inherited or there is a weakness of the hock joint, or a certain imperfect formation of the hind leg and hock that induces spavin when the parts are exposed to any undue strain. So is it with "bog spavin" and "curb" and "thoropin;" with "ringbones," and "sidebones;" with navicular disease and "chorea." The actual diseases are not transmitted but the offspring of sire or dam affected with a hereditary disease is rendered liable to contract the same disease under conditions favoring its development.

It is as necessary, therefore, that the brood mares should be sound as that the soundness of the breeding stallions should be made imperative, indeed we never can expect to have sound breeding stock while either side of the breeding equation is unsound. It takes "like" to produce "like," as a general proposition, and when the mares are unsound the sound stallions will be unable to offset the unsoundness.

The stallion owner could, if he



"LIKE PRODUCES LIKE."

Two views of hind leg of Wisconsin-bred mare showing ringbones, bone spavin and other bony excrescences. Subject was the progeny of an old, crippled mare; at three years developed a bone spavin which was "fired;" at four years developed ringbones and at five years bony growths formed on back of leg and animal having become useless was destroyed.

hereditary predisposition as this so that it is wise to retire from breeding all stallions or mares afflicted with diseases such as "roaring," "broken wind," "asthma" or "heaves."

Many farmers have erroneously been informed that "wolf teeth" cause eye trouble in horses. The "wolf teeth" usually are discovered about the time the colt commences to develop "periodic ophthalmia" or "moon blindness" and are blamed for the trouble. There is not a vestige in this belief. The "wolf teeth" are insignificant, rudimentary teeth (relics of the seventh molars of the prehistoric horse) and may be shed by the time the horse is seven or eight years old. They have no connection with the sudden appearance of eye disease, but the latter is due to hereditary predisposition acquired from affected parents or ancestry and aggravated into actual disease by irritation and inflammation or unsanitary surroundings and influences.

The eye trouble usually appears when the colt is "rising three" and is aggravated into existence by the cutting through of 16 molar teeth and the shedding of 12 molars. If the hereditary predisposition to control eye disease is absent the tooth-cutting irritation and inflammation do not affect the eyes but, if the predisposition is present, dentition irritation, the debilitating effects of some disease,

would, be the most potent power for good in this direction. Having a pure-bred, sound stallion it would be greatly to his advantage to allow his horse to serve only mares that he considers perfectly suitable. At present he feels inclined to accommodate any owner of mares knowing that the "scrub" or grade stallion will be used if he refuses to allow his horse to serve, and, for this reason, many a fine stallion falls to make a good name as a breeder because the foals he sires from unsound and unsuitable mares are of poor quality and therefore criticised by interested persons who desire to injure his reputation. It would be well for our horse breeding industry could every stallion owner see his way clear to reject any mare that is either unsound or unsuitable and could such discrimination become general it would quickly tend to improve horse stock.

DR. A. S. ALEXANDER.

**Turnips for Sheep.**—Probably turnips are more desirable than any other succulent food for all kinds of sheep. The animals are very fond of them and also relish mangels near spring time. Sugar beets are generally quite satisfactory.

**Forcing Tomatoes.**—Ohio growers have decided that it is not profitable to grow a crop of tomatoes in mid-winter under glass, in northern latitudes. Prices are not high enough.

# BETTER FARM MANAGEMENT ON HIGH PRICED LAND

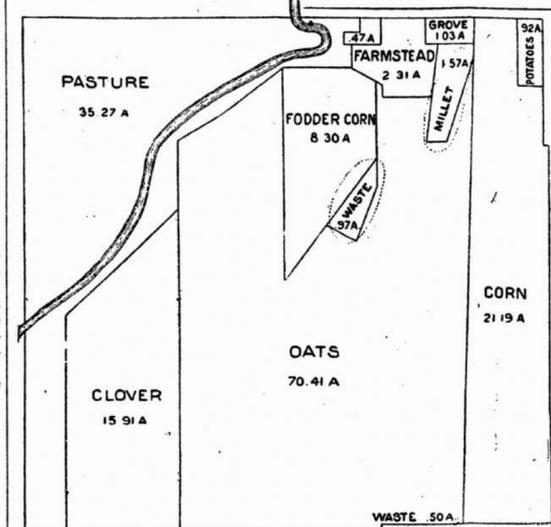
How Some Farms Might Be Made to Pay Larger Returns on the Investment.

[From Bulletin on "Cost of Producing Farm Products," Prepared by Willet M. Hays and Edward C. Parker.]

The day of cheap productive lands is coming to a close in the United States. The possibility of disposing of high-priced lands in well-settled communities and purchasing equally productive land at a lower price in the west will soon be at an end. System and more efficient management must enter the realm of agriculture if reasonable profits are to be extracted from the soil and its fertility be conserved for the use of future generations.

Waste of machinery and other capital, waste of labor, and waste of

of live stock, machinery, and other capital and labor. All these are corollaries of crop rotation, and the result of systematic crop rotation must always be increasing profits due to greater productivity in the soil, more effective employment of capital and labor, and sounder business methods. The intensive systems of farming practiced near the great cities of the eastern part of the United States, where grain and mill feeds are shipped from the west, can not be extended to a majority of the farms in the United States. Such systems of farming can only be practiced at the expense of the fertility of other agricultural regions from which concen-



A Quarter Section Farm in Southeastern Minnesota Located on the Bottom Lands of an Old River.

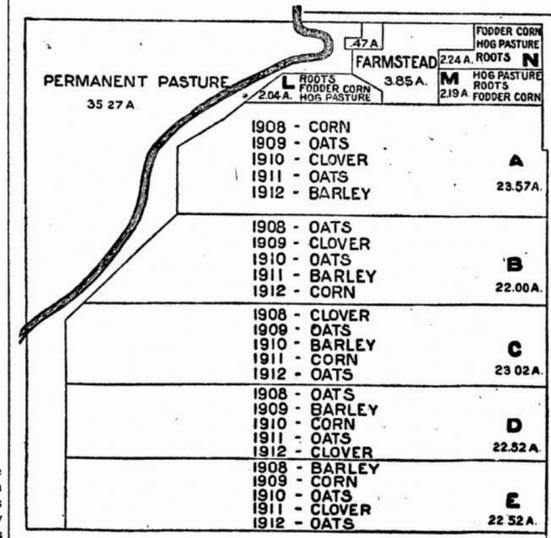
Distance from city markets is 60 miles. The soil is a sandy loam, easily worked and easily drained. Dent corn thrives luxuriantly on these bottom lands and is easily matured. Improved land is worth \$75 an acre. Areas within the dotted lines need drainage and can be cheaply drained to the creek flowing through the farm. The products marketed are oats, milk and corn. Twenty cows are kept, 15 head of young stock, ten horses, and 10 chickens. Thirty-five acres are in permanent pasture, and this land is too rich to be put into rotation with the arable fields. No systematic scheme of cropping is followed, although more corn and clover are grown than on the average farm in the same county. The farm is stocked as heavily as it will stand as long as grain, is to be part of the market product.

fertility are conspicuous features of the agriculture of the middle west. The settler has sacrificed soil fertility and great values of farm machinery

in order to obtain quick profits and ready cash, and then as the country has grown older he has neglected to

trated feed stuffs are purchased, and they are therefore undesirable for the majority of American farms.

The map shown with the suggested rotations and more businesslike methods of farm management, are presented merely to show the lack of



The Same Farm Replanned.

The arable land has been placed under systematic rotations permanently projected, beginning with the year 1908. In preceding years the low spots have been drained, field C seeded down in 1907, and the outside lines of the farm permanently fenced. The small fields adjoining the farmstead have been fenced with hog fencing.

The five-course rotation on the five large fields, A, B, C, D and E, provides each year approximately 22 acres of corn, 44 acres of oats, 22 acres of barley and 22 acres of clover meadow. The crops are arranged in the following sequence: First year, corn (manured); second year, oats (seeded down); third year, clover; fourth year, oats; and fifth year, barley. Corn, flax, or wheat instead of the oats could be grown, following the clover sod, as a market crop, if desired. Oats are placed on the sod land because they are the chief market crop in this region and can be grown successfully on the light clover sod if desired.

The three-course rotation of small fields L, M, and N provides two acres for fodder corn each year, two acres for annual hog pasture, and two acres for root crops such as potatoes and mangels. These crops are arranged in the following sequence: First year, fodder corn; second year, annual hog pasture; third year, roots. The land in the five-course rotation would have to be plowed three times, in five years and the small fields twice in three years.

The cattle and other stock may be allowed to pasture over the entire farm, as soon as the corn crop is harvested. While this rotation cannot be considered as nearly ideal as those outlined in figures 3 and 7, it is eminently practical and fits in well with the requirements of a farm having a permanent pasture. The live stock will produce enough manure to give each field a good dressing once in five years, and the manure with one crop of clover in five years will undoubtedly keep the soil in a good state of fertility.

remodel his business to meet the new and changed conditions. It is not idle prophecy to sound this warning, that, unless the next generation which tills the soils of the middle west puts the fields under systems of farm management, fertilizer problems such as now confront the east and south will have to be met before many decades. On the other hand, if the proper physical conditions for soil decomposition are maintained by systematic crop rotations and intelligent methods of farm management, the producing capacity of the prairie soils can be maintained indefinitely. Land on which crops are rotated systematically demands more intelligent methods of field management, more intelligent use

business system that too often prevails in the methods of farming on the high-priced lands of the middle west.

**Some Winter Troubles.**—Egg eating and feather pulling are troubles not common where hens are given extras in the way of green foods and meat scraps. When too many hens are crowded into small houses, with little or no exercise, they are very apt to acquire these bad habits.

**Push the Turkeys.**—It is important to get the turkeys to lay as large a number of eggs as possible before they want to sit, and to start their laying as early as the first or middle of April.

# THREE ESSENTIALS TO THE MAKING OF PRIME BEEF

Beef Form, Proper Early Feeding, and the Proper Finishing Must be Considered.

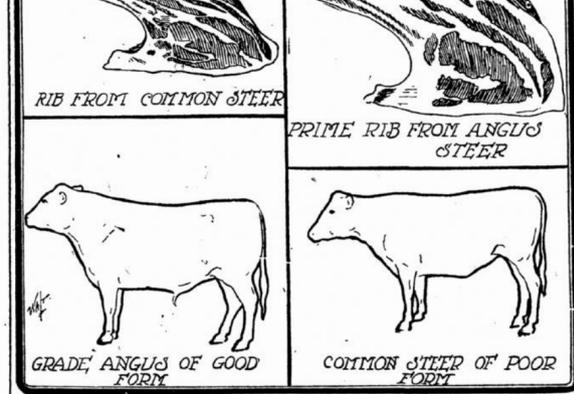
There are three essentials to the production of beef of the best quality; an animal of good beef form, proper early feeding and finally, proper finishing. The block test is the most accurate in showing just how the steer should be finished and in checking up results. More and more attention is being given by the best feeders to the testing out of the carcasses. This is being done more gen-

erally at leading stock shows and experiment stations. A comparison of the live animal with cuts of meat subsequently taken from it, and shown as finished ready for the retail trade, gives in a striking fashion, the relative success of the feeding. In the illustrations shown herewith, the difference between the two animals before and after killing is easily seen.

The first steer of common breeding is lacking in the development of the parts which make up the highest priced cuts. The loin is not well filled out and the rib is poorly fattened, neither is the shank well covered. This animal also has a poor form for feeding and is much under fattened. He represents a class, many of which are being produced, yet not their feeders are so profit.

The comparison of the form of the grade Angus steer with the common steer shows at once the superiority of

the latter. He is well developed at points where the high priced cuts grow and is finished just right for market. He is not excessively fat or lumpy, and has been produced in a reasonably short period of fattening. The comparison of the rib cuts from these two animals is even more valuable. That from the common steer is too light, rather short and thin and lacking in quantity and distribution of fat. The quality of the meat is,



Comparison of Beef Steers and Cuts of Meat.

therefore, considerably below what it might be, had the animal been fed longer. The shape of the rib shows that it was not well sprung as compared with that of the Angus steer.

On the other hand the rib from the Angus steer is of prime quality, choicely finished. There is a large amount of lean meat and at the same time, sufficient quantity of fat, well distributed so as to give cuts the high quality. The flesh is well marbled and the well sprung rib gives deep flesh near the central body line.

In the opinion of Farm and Home the dressing-out of these carcasses should be more carefully studied by feeders. Far more of the success in the profitable feeding of steers depends upon the selection of the properly formed animal and the finishing than have ever been supposed. However careful the stockman is to use the proper feeds, deficiencies in these two points cannot be made up.

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# Lambsquarter Often Mistaken for Pigweed



Lambsquarter is often called pigweed, but it has a much smaller leaf than does that plant. It is an annual weed, common in gardens and in cultivated crops, but is not usually common in grain fields. It produces seeds

profusely. The seeds are very small and are easily separated from grain seeds. To eradicate, use clean seed, carefully cultivated corn and similar crops, or rotate the crops annually.

**Clover in the Orchard.**—The department of agriculture has been conducting a series of experiments to test the value of cover crops in increasing the hardness of young trees, with results varying according to climate and conditions of weather. In Nebraska cover crops were found decidedly beneficial, while in North Dakota they proved very harmful. So it would seem

that orchard-growers will be left to their own devices according to conditions in their sections.

**Give Hens Room.**—A few hens with space sufficient to move about and flap their wings, will lay more eggs than will twice that number with poor accommodations, be they ever so well fed.

# IN BOTH BIG EARTHQUAKES.

Crew of Steamer Uarda Experiences Frisco and Valparaiso Horrors.

The captain and crew of the Hamburg steamer Uarda had the uncovered privilege of experiencing both the San Francisco and the Valparaiso earthquakes.

On April 18, about 5 in the morning, as the ship was approaching the Golden Gate, it was suddenly shaken violently. The captain immediately ordered the engines reversed, but the ship continued to quiver. While every one was wondering what the ship had run against the pilot came on board and told of the great earthquake. Soon the clouds of smoke also spoke of the fires raging in the doomed city. The next day fugitives began to come on board and during the following ten days about 150 persons were daily fed. Then the steamer started homeward.

On Aug. 18 she was anchored in the harbor of Valparaiso. It was after supper and the captain lay on his sofa reading, when suddenly the ship was shaken so violently that the captain was tossed up and glasses fell from the cupboards to be shattered on the floor. The first officer was shouting: "Earthquake! Another earthquake!" The ship continued to move up and down so violently that one could not stand. Then there was a pause, followed by other earthquakes.

Looking landward, a terrible sight presented itself. The city was in ruins and the cries of the people, mingled with the dismal howlings of the dogs, lent additional horror to the sight of the city burning in twenty places at once.

# ORIGIN OF NURSERY RHYMES.

Some Very Familiar Lines Are Centuries Old.

Slang phrases, in course of time, become absorbed into the vernacular, just in the same way that nonsense rhymes and nursery verses become institutions, says the London Chronicle. Take the following examples. The famous lines

"Mother may I go out to swim?" "Yes, my darling daughter; Hang your clothes on a hickory limb, And don't go near the water" are at least 1,300 years old, being found in the book of jests of the sixth century, compiled by Hierocles. "Humpty Dumpty sat on a wall," etc., has come down to us from the days of King John. "The Babes in the Wood" dates from the fifteenth century, being founded upon facts, an old house near Wayland Wood, Norfolk, having the whole story in carvings on a mantelpiece. "Little Jack Horner," "Little Miss Muffet," "Old Mother Hubbard," "Mother Goose" and "Goosey, Goosey, Gander" are each traceable to the sixteenth century.

"Pussy Cat, Pussy Cat, where have you been?" belongs to the reign of Queen Elizabeth. "Three Blind Mice" first appeared in a music book dated 1609. "A Froggie Would a-Wooing Go" was licensed to be sung as far back as 1650. "Boys and Girls, Come Out to Play" and "Lucy Locket Lost Her Pocket" both hail from the period of Charles II. And last of all, "Cinderella," "Jack the Giant Killer," "Bluebeard" and "Tom Thumb" were published by their author, Charles Perrault, in the year 1697.

# WHAT A RACE SINGS ABOUT.

Each Nationality Has Its Own Range of Favorite Ballads.

"It may or may not be the case that a race's temperament can be judged from its folk songs," said a traveler on a trans-Atlantic liner the other day, "but it is interesting to note the difference of subject matter in the songs of various peoples."

"The Irishman, for instance, seems to sing for the most part about his lacy love. Hardly any of his songs are not addressed to his 'Somebody Mavourneen.'"

"The Scot, on the other hand, sings about his country and its history, as a rule 'Scots Wha Hae,' 'Ye Banks and Braes o' Bonnie Doon,' 'Loch Lomond' and so on might be taken as examples.

"The Englishman, it is interesting to note, sings about himself all the time. His songs are about his own glory, his ships, his men, his power. He refers occasionally to old England, but only as a place to be made famous by his own prowess. Unlike the Irish and the Scot, he sings little of his women and his country's beauties."

"What about the American?" asked a New Yorker who was present.

"The new American, as far as I have observed," replied the traveler, "sings the songs of the country he was born in. The old American, with all respect to you, sir, seems to sing almost exclusively of the things he hates most—the nigger."—New York Times.

# Good Blood.

"Sure he's swell!" exchanged the Chicagoan, referring to a prominent fellow citizen. "Why his family's got money to burn."

"But their blood," suggested the Boston girl, "what of that?"

"Why, they make extract o' beef an' such like out o' that. Nothin' never goes to waste in their slaughter house."

# Pat Guessed It.

A motorist, who was touring in Ireland, one day met a native on the road who was driving a donkey and cart. Thinking he would have a little fun at his expense, he began:

"What is the difference, Pat, between your turnout and mine?"

The native looked at the questioner a minute or so, and then replied:

"Not a great deal. The donkey's in the shafts in one and on the seat in the other."

The motorist asked no more conundrums.