# Dairy Cow Fills Breach as Itasca Lumber Industry Wanes

### County Finds Prosperity in Cleared Land

Potatoes and Clover Also Big Factors in Diversified Farming.

(This is the tent hof a series of articles on the dairy industry which is ap-pearing in The Sunday Trbiune. It is the purpose of these articles to the doctrine of dairying among business and professional men as well as among the farmers.)

By Charles F. Collisson.

"Potatces, clover and cows are the great agricultural trie of our country up here and the greatest of these are the good old dairy cows." So said a banker in Grand Rapids to me the other day.

"We believe in putting a dairy herd on every farm in the Northwest, all This is the only way that we can build up this whole cut-over timber region into a farming country. But first of cows on. Our greatest problem, the one that we must tackle first, is to get more of this stump land cleared up. As soon as it is brushed, even in part, and grazing land. What we lack most. however, is cleared acreage suitable for raising the necessary feed crops, to keep the cows going through the winter time. For that is the best time to practice dairying."

I visited Grand Rapids the other day, after an absence of some six years, mainly to see what progress Itasca county is making in dairying and diversified farming. As a lumbering town, once the seat of an industry that has waned, Grand Rapids is quite an old As the county seat of a prosperous farming country, it is still com-The astonishing progress that both

the town and the surrounding country have made in agriculture is reflected in the smart appearance of this attractive little city on the banks of the Mississippi. Paved streets, two live newspapers, one large and several good smaller hotels, a public library, beautiful homes, splendid schools, a fine new hospital, and particularly attractive shops, stores and garages all indicate that as the lumberman has departed the potato grower and the dairy farmer have supplied a more insting basis for future prosperity. A large paper mill veneer factory, a shingle mill and a cooperage plant remind one that smaller timber products are still abundant. potato growers' warehouse and county fair grounds, besides the big barns and silos on nearby farms and the state's North Central Experimental station and farm a mile or two away are other visible evidences of an agricultural incounty than ever the lumbering could.

Farming Land on Every Side.

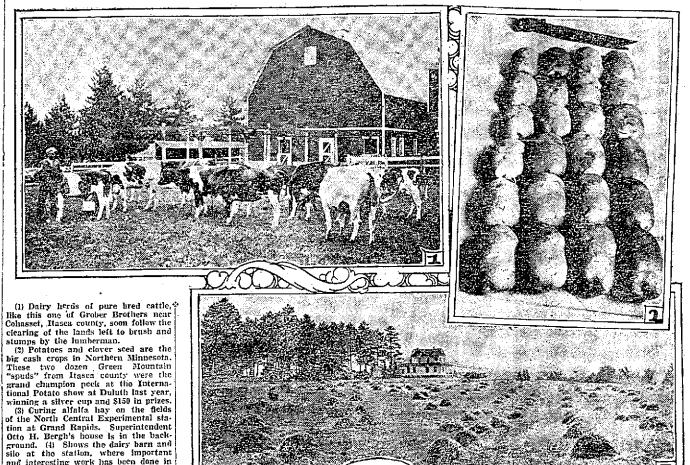
county seat with towns on the nearby tron range and with villages that foralong these lines are to be seen frequent clearings with log houses and barns, and others where the buildings are modern and the herds-are unmistakably pure bred or high grade. Between these farms, however, are thousands of acres of splendid farming to rich heavy clay, locked up in the teracious grip of the green brush and the pine stump, awaiting the strong stumps bllowed to stand for several agricultural and tourist region. They right arm and the breaking plow of the

Many parts of the county are already highly developed as farming communities. Others are still engaged in the struggle of land clearing, brushing and road building. The greater part of it is still untouched agriculturally.

For this reason the business men of Grand Rapids and of the thriving little villages that dot the southern part of the county, are giving a great deal of attention to land clearing, as the main prelimihary effort to the development of dairying. They know that the dairy cow is the basis for any permament expansion of agriculture in Northern Minnesota, They are fully aware of the agricultural prosperity ahead of them, a development already greater than was ever created by the declining lumbering industry. Mostly they are of the younger type of business men who are not content with sitting around waiting for opportunity to beat an anvil chorus on the front door. Like those of several other Northern Minnesota communities, the farmers, bankers and merchants of Itasca county are all pulling together right now in an effort to make this one of the most productive dairy regions of the Northwest.

One of the first things to greet the aye of the visitor in town is a poster hung up in the stores, hotels, news paper offices and garages, announcing "BOOSTER - MEMBER OF THE ITASCA COUNTY LAND CLEARING ASSOCIATION." Otto H. Bergh, 80perintendent of the experiment station,

# Dairying Hailed as Greatest of Itasca's Agricultural Trio



and interesting work has been done in "grading up" a herd of common cows with pure bred dairy sires, increasing the milk production of the offspring steadily from year to year. agent, A. H. Frick, is secretary and

#### Town and Country Represented.

It was organized in March, 1921, and is made up of representatives of the town commercial clubs, bankers and merchants and the farmers' clubs, so that both town and country are represented, besides nearly every class of business. It has two classes of members, the working members, or farmer who do the actual work of clearing, and the contributing members, or business men who put up the money to finance the association's efforts. The bankers of the county have been active and quite liberal in making leans to clear

First a campaign of publicity and education was started. The clearing of growing a crop. With good grade dairy education was started. The clearing of growing a crop. With good grade dairy it also won the county championship, more acreage was urged strongly in cattle and proper seeding and manage. At the International Potato show in the county newspapers and meetings of the local farm bugget units. These efforts were followed by the pooling of orders for dynamite, pleric acid; pected."

The county newspapers and meetings ment of the stump land pasture, an anticular to the stump land pasture, and the pooling fat and skimmilk may safely be expected. The champlon peck, 23 first prizes and two second prizes, or more than any other county exhibiting. caps, fuses and other land clearing pounds of explosives were bought and distributed to the farmers at cost, plus freight. The small orders were given the benefit of the car-lot price, so a large saving was made for the farmers.

"The results were highly gratifying." ten thousand acres of land were cleared up in the county and put into con-Aiready several bus lines connect the aitlon for farming. This actually increased our cleared acreage in one year by about one fourth. Our rate of clearmerly were mere lumber camps. All ing before that had been only about 1,039 acres a year.

"Last fall we put on a brushing and seeding campaign. In preparation for Ifasca County Development association for them. Production is ago it had the highest individual chamnow largely specialized in three variation for them now largely specialized in three variation in potato growing, with a record tion. The former sets aside a fund each the future. It has been demonstrated that it takes a much greater expenditure for explosives and labor, to clear the find of the highest individual chamnow largely specialized in three variation for them. Production is ago it had the highest individual chamnow largely specialized in three variation for them. Production is ago it had the highest individual chamnow largely specialized in three variation for them. Production is ago it had the highest individual chamnow largely specialized in three variation for them. Production is ago it had the highest individual chamnow largely specialized in three variation for them. Production is ago it had the highest individual chamnow largely specialized in three variation for them. Production is ago it had the highest individual chamnow largely specialized in three variation for them. Production is ago it had the highest individual chamnow largely specialized in three variation for them. Production is ago it had the highest individual chamnow largely specialized in three variation for them. Production is ago it had the highest individual chamnow largely specialized in three variation for them. Production is ago it had the highest individual chamnow largely specialized in three variation for them. Production is ago it had the highest individual chamnow largely specialized in three variation for them. Production is ago it had the highest individual chamnow largely specialized in three variation for them. green stump and brush land, than it does if the land is brushed first, seeded down to clover and grass seed, and the years before they are removed. Using this land as pasturage for dairy cows and young stock or sheep, it will then yield a return which more than justifies this practice."

#### Delay Plan Favored.

A bulletin of the North Eastern Ex-A bulletin of the North Eastern Experiment station, on experiences in land clearing says: "A comparison of the two systems of clearing land is all in favor of the delayed plan. The work is done at a saying of one-third or "small potatoes." Frick's office is Is done at a saving of one-third or more. During the years between cutting off and stumping, an annual crop
of grass was assured, the forming clover sod was reinforcing the thin leaf is done at a saving of one-third or er sod was reinforcing the thin leaf

settling, all of which contributed to the job of breaking, getting a seed bed and "One good feature of our associa-

its economy. It was undertaken as a regular farm bureau project, and organization work was only \$250. Plans are being laid now for a more extensive program, with more warehouse for the storage of explosives, to enable, us to buy in larger quantities and to have a

Working hand in hand with this land Working hand in hand with this land clearing project are the Grand Rapids.

Commercial club, which maintains of that of standardizing the varieties fices in the Pokegama hotel, and the grown in the county and building up a reputation for them. Production is agricultural leaders of the county. Both associations are active in promoting and advertising the attractions of the town and of the county as an industrial. have done splendld work in backing up the county agricultural agent in his efforts and in preparing attractive exhibits of farm products for the State fair, potato shows and other exhibitions. Attractive booklets entitled "Op-portunities Itasca County Offers You" and "Fifteen One-Day Auto Trips in Itasca County," are distributed freely

potato show at Grand Rapids in 1918, mold of the virgin soil, roots and woody and second prizes at the shows at

matter were decaying and the land was Moorbead in 1919 and at Duluth in 1920. The county won the grand champion peck at the Duluth show, and also at the Minneapolis show in 1921, where

#### Growers Well Organized. .

The potato growers are, well organ-zed and are cashing in on this reputation by shipping out their potatoes in branded sacks labeled "Itasca County Potatoes." They have built a co-opera-tive potato warehouse in Grand Rap-ids, and operate the Grand Rapids Produce exchange, controlled by the grow marketing, through the Minnesota Co-operative Potato exchange, and also di-rect to the potato seed trade, and to the markets on the Iron Range. Last season they shipped out about 25 car-

largely devoted to potatocs. We feel that a lot has been accomplished in establishing our reputation as a high class potato producing county. Now, however, we are pushing darying forward as the parameunt issue, while carrying on our potato promotion as well. It would not be to our best interests here to have our farmers going into potato growing exclusively. Our soil's fertility would soon he depleted just as with wheat growing in other regions. We have to build up our future prosperity on diversified and dairy farming. largely devoted to potatoes.

prosperity on diversines and dary farming.

"Our first project has been in the introduction of more pure bred dary sires. About 15 bulls, including eight Guernseys, six Holsteins and two Jerseys, have been brought in. Several co-operative breeding circuits have been fromed, so that some of these bulls are co-operative oregaing circuits have been formed, so that some of these bulls are really serving five or more herds each. Some of the county banks have financed these purchases, without charging any interest for one year, and charging any interest for one year, and work should the these three that this has helped a lot, in promoting the Hasea county has three creameries, dairying industry. It has stimulated at Grand Rapids, Bovey and Deer Riv-

the interest of the farmers by making a real interest in their efforts, and are willing to back them up in improving their herds.

"Right now we have on hand four ration projects. These include the introduction of more pure bred sires, more good dairy cows, both grade and pure bred; the organization of a county cow testing association, and the boys' and girls' dairy call clubs.

#### One Breeders' Association.

"Already we have a cow testing asso-ciation in process of formation. The movement for better sires is in full movement for better sires is in full swing. This is considered more important right now than bringing in too many cows all at once, before we have enough feed for them. There is already a very good live Guernsey Breeders' association and a Holstein Breeders' association will be organized before the year is out. These two breeds prodominate now, with the Guernseys far in the lead as to numbers. We have more than a dozen pure bred herds in the county already, and a lot of good grade herds that are being bred up to higher production by ing bred up to higher production by using pure bred sires. The aim is to increase the production and raise the quality of what we already have, rather than to increase the actual number any faster than our land clearing warrants."

rants."

One of the most important development factors in Itasca county is the Boys' and girls' club movement. The county hires no paid club leader and the work is under the direction of the county agent and the school authorities and teachers, who appoint local leaders in each township. Nearly 500 members are enrolled in the dairy calf, sheep, pig, poultry, potato, gardening, canning, bread and garment making clubs. The most important of these canning, bread and garment making clubs. The most important of these are the potato, dairy calf and bread making projects.

For five years Itasea county has had the champion potato club. Two years ago it had the highest individual chambian interest the country has the chambian transfer.

ion at the Minnesota State

ing both boys and girls."

#### Few Calves Imported.

"Instead of importing a lot of calves, they were largely supplied by the coun-ty breeders and by the club members" wn parents. We look for some splen did educational results from this work which is teaching these youngsters ho to know and to care for good slock These clubs are certainly doing a great work along these lines."

### Experiment Station Helps to Solve Farmers' Difficulties

Importance of Pure-Bred Sires in Increasing Dairy Production Plainly S hown By Records of Project St arted in 1904.

ounty, and the former is being actively mined only a few miles northeast of Grand Rapids. The Range road from town is a state highway, now in process of being paved with concrete as fur north as Albany, beyond Virginia, in St. Louis county. On this road is Col-ernine, built for the employes of the United States Steel corporation, and one of the most beautiful model towns in of the most beautiful model towns in the Northwest. The Canistee mine is nearby, and a washing plant for iron ore, the largest in the world. Beyond Coleraine are the villages of Taconite, Marble, Calumet, Bovey, all of which have mines close by while Nashwauk, just beyond, has twelve great mining properties and is mining headquarters for the Tatarratival Harvester confor the International Harvester com-pany. Keewatin, on the county Enche-tween Hosen and St. Louis countles, also has several mines, and Hibbing, the greatest from mining center of the world, lies just beyond. These towns and mines afford the farmers good mar-kets for all their farm products and are easily reached by automobile or

The central part of Itasca county is one of the most beautiful lake regions of all North America, a veritable sportsman's paradise of lakes, streams and The western half includes a forcest. The western half includes a large portion of the Minnesota National forest. The Mississippi runs through the southern part, into which empty scores of smaller streams. A dam and waterfall at Grand Rupids give the town its name and furnish ibundant power. Itasen county has had a poultry as:

reased county has had a poetry sociation for the past four years and some flourishing poultry centers have been developed at Grand Rapids, Deer River and other points. Deer River Farmers Co-operate.

A very progressive farming commun-ty has been developed at Deer River and northward along the line of the ity has been developed at Deer River and northward along the line of the Minneapolis & Rainy River railroad, which joins the Great Northern there. The Deer River Parmers' club has bought several car loads of feed and supplies co-operatively as well as large orders of seeds and explosives. They have also formed a co-operative eggmarketing association to increase their poultry profits in connection with the creamery. Another prosperous farming poultry profits in connection with the creamery. Another prosperous farming and dairying community is in the Bear River region, north of the Iron Range. Even in Carpenter township beyond and 40 miles from a railroad, are some 40 farms that have cleared acreaged of 50 or more acres and realize good profits from the sale of cattle, hay and potatoes. There are several Finnish settements at Nashwauk, Blackberry, Wawing and Max that have been very Wawina and Max that have been very

successful.

The North Central Experiment station, just outside of Grand Rapids, has undoubtedly been a most important factor in giving Hasca county its decidedly head start in deliving over some other Northdairying over some other North-ern Minnesota counties. It has furern. Minneson to distribute the farmer in its vicinity with a visual example of what can be done, in actual practice, to subdue the stubborn obstacles of cutover timber land farming. Not only can he see here the results of all the numerous experimental projects in the fields and the herd, but detailed records of costs and other valuable data are also available for helping him to work out his individual problems.

The object of the work on this farm as been to find out the most practica has been to find out the most practical; and profitable system of farming for the timbered regions of the state, where farming is so different from that in older and prairie land sections. The land must first be cleared, and a living must be made at first from 20 acres or less under cultivation, while the rest of the farm is being developed. The resultant the rest at the station, es of the farm is being developed. The results of the work at the station, as well as the experiences of hundreds of successful farmers, show that dairying is without question the most profitable system of farming, and that it is entirely practical for the larger portion of the larger por system of farming, and that it is en-tirely practical for the larger portion of, the timbered country. Hog raising to a limited extent, and poultry raising can also be carried on with dairying. Where there are natural meadows, or more feed is produced than dairy cows can consume here earths and sheen can be consume, beef cattle and sheep can be

production, riors a very single segment ning with only a few common cows of the kind that farmers in this new coun-try can usually afford to buy and care for. One object was to demonstrate that dairying could be profitably conducted in timber land country. The other was a find out what improvement could be in improving the herd's offspring and in

er, affording the dairymen good outlets for their cream. The western portions At the start this herd had only ten of the Mesalui and Vermilion iron ranges extend diagonally through the years there were so head. The herd was enlarged principally by breeding was enlarged principally by breeding these foundation cows to jure bred balls of good dairying type, and raising the heliers. Records have Leen kept of the production of both common cows—or those without any dairy blood—and also of the grade dairy cows. Most of the latter were the daughters of the common cows and, the pure bred sires. These records involved millions of Individual entries covering nearly 20 years and they constitute a most valuable and and they constitute a most valuable and

interesting demonstration of the real worth of the pure bred sire in building up a herd for higher production.

The improvement was manifest right from the start. The helfers of the very first cross with a pure bred sire produced 50 pounds a year more butterfat than their mothers had done. In the second and third cross, there was not only an increased production, but the treed creased production, but the breed type of the sire was so apparent that many of the offspring would have passed for pure breds in ap-

perance.

In ten years the common cows each produced an average yearly income of \$51.83 for butterfat. The grade cows averaged \$63.30 per cow a year, the averaged rice of butterfat being 23 cents. The grade dufry cows averaged \$6 pounds averaged \$60.00 per cow a year, the average price of butterfat being 25 cents. The grade dufry cows averaged \$6 pounds averaged \$6 pounds. more of butterfat a year than the com-mon cows. After deducting the cost of made under actual and usual farm conditions, no attempts being made to force an abnormally high milk production.

an abnormally high milk production.
Average For State Teo-Low.
The production of many common cows is only about 100 pounds of butterfat a year. Even with the best of feed and care it will not average more than about 200 pounds. The average for all the cows of this state is too low, only about 160 pounds, and this is not sufficient to make dairying producible on large cient to make dairying profitable on land

worth \$100 an acre, and with high priced feed and labor.
At the start, the average yearly pro-duction of this experimental herd was only 196 pounds of butterfat or less than 5.000 pounds of milk. This was in-creased to a miximum average yearly production in 1917 to 7,134.1 pounds of milk with 555.1 pounds of butterfat per cow. The following shows how the proluction average of the herd has been climbing steadily upward during

cow's feed and upkeep. ent of the common cows had to be disosed of for failing to meet this re-quirement. Only 10 per cent of the grade dairy cows fell by the wayside. The latter all had pure bred sires. The ormer did not.

Another Interesting comparison, illus-trating clearly the potent influence of the pure bred sire, is that between the individual cows and some of their

rd, her daughter by a Guernsey sire dad an average of 323. Distant another half Red Poll gave 258.9 pounds. Distant 2nd, her daughter, a half Cuernsey, gave 258 pounds. Garden, a grade Guernsey cow had a record of 232 pounds. Her daughter, Garden 2nd, a three-fourths Guernsey increased the

Ida was a common cow. All the but-terfat that she could make was 189.5 pounds a year. Her daughter, Ida 2nd by a pure-bred sire, made an average of 210.6 pounds, while her granddaugh-ter, Ida 2nd-2nd, a three-fourths Re-Poll increased the yield to 241.3 pounds. raised to advantage.

A Valuable Project.

A most interesting and valuable project was started in 1904 under the direction of A. J. McGuire, the superintendent of the station, and has been continued since 1914 by his successor, Mr. Bergh. Its purpose was to establish a darry heard and to grade it up to larger production, from a very small beginning with only a few common cows of the kind that farmers in this new counterproduction. record, was the mother of two daugn-ters that gave '19.9 and 308.2 pounds, Stuffy, a beefy Red Poll cow averaged only 194.1 pounds for 10 years. Her daughters by a Guernsey sire had year-ly average records of 246.3 and 309.3

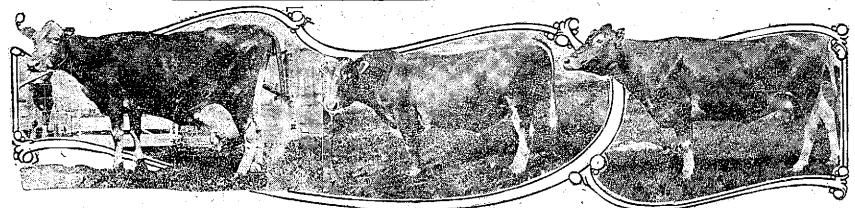
Until 1914, no cow in the herd had at. Since that year to 1920, however, to cows made records above 400 pounds each, four produced 450 pounds and one has made a record of more than 500

has made a record of more than 500 pounds. This is Brindle 2, a seven-cighths Guernsey, who completed in 1919 a yearly record of 10,381 pounds of milk with 543.5 pounds of butterfat, under general herd conditions.

One of the sires that have transmitted this milking strain to their offspring in this herd is Duenota Third's Son, who has many noted Guernseys in his ancestry, including Selma of Pinehurst, Lord Mar, Lucretta's Maid of Honorf and Count Lonan. He is an animal of and Court Lonar. He is an animal of show ring class, unusually large for his breed. Another good sire is Majd's. May King, son of Bedu's May King. These records carry an important less.

These records carry an important lesson to the farmer who is unable to "buy into" the dairying business, with the purchase of a great foundation herd of high priced pure-bred cattle at that start. They point the way clearly for the average man of moderate means to "grow into" dairying, by acquiring a herd of good ordinary milkers and then improving their ordayring by using only pure-bred, registered sires and building up a larger herd production of high milk producing ancestry. They also show why, at this stage of its dairy development, Itasca county is paying so much attention to bringing in pure-bred buils instead of increasing cowe too fast. cown too fast.

## Influence of Pure-Bred Sires Shown in Record of Two Cows



In the center is "Violet's Mentor of Craigmere," one of the pure-bred sires, bred by Judge George C. Cooper of Su-