



**SMITH'S OVARY TONIC
MAKES HENS LAY**

Your hens will lay all the year round, if you will give them Smith's Ovary Tonic once a week.

One teaspoonful to four fowls keeps hens healthy—strengthens and invigorates the egg-producing organs—and renews wasted tissue due to prolific laying.

Only 25c. and 50c. a bottle. Sold by druggists, grocers, etc.

NATIONAL DRUG & CHEMICAL CO., LIMITED, MONTREAL.



Burnside Ayrshires

Imported and Canadian-bred. Prizewinners at all the leading shows. I hold the award of merit given by the Bd. of Dir. of World's Fair, St. Louis, to the breeder of largest number of prizewinning Ayrshires at said Exposition. Females of all ages for sale, imported and Canadian-bred.

R. R. NESS, JR., HOWICK, QUE., P.O. AND STATION.

SUNNYSIDE STOCK FARM

FOR SALE: A number of young **SHORTHORN BULLS**, red and roan, from imported sire and dams; good enough to head pure-bred herds. Apply: **JAMES GIBB, Brookdale, Ont.**

5 one-year-old bulls \$60 to \$100 Canadian
5 one-year-old heifers, \$100 to \$125 Shorthorn
4 six-months pigs, pure Yorks. \$15 per pair.
10 six-months sows, pure Yorks.
50 six-months pigs, \$14 per pair.
100 fall pigs, \$6 per pair.
Purchasers must make own selection. Apply: **A. SUMMERS, Valley Farm, Aldershot P. O., Ont.**

Wm. Grainger & Son

Hawthorn herd of deep-milking **Shorthorns**. Aberdeen Hero (imp.) at head of herd. Three grand young bulls, also females, all ages. Prices reasonable.
Londesboro Station and P. O.

For Sale: Two Young Shorthorn Bulls

Also Cows and Heifers, and one good Imp. York. Sow, also a good Yorkshire Boar one year old. Good breeding and good animals

DAVID MILNE, ETHEL, ONT.

ELM GROVE SHORTHORNS

We have for sale some good young cows and heifers, of the Fashion and Belle Forest families, in calf to Scottish Rex (imp.) or Village Earl (imp.), our present herd bull. For prices and particulars address

W. G. SANDERS & SON, Box 1133, St. Thomas, Ont.

ROSEDALE SHORTHORNS

Do you want a profitable cow with calf at foot and bred again; also heifers bred and heifer calves from imported stock. Choice milk strains. Write: **A. M. SHAVER, Ancaster, Ont., Hamilton station**

High-class Shorthorns—We are now offering 5 young bulls and 3 heifers, two, three and four years of age. Marigolds, the eldest, a daughter of Imp. Royal Member, has a calf at foot by Sailor Champion. This is an extra good lot.
THOS. REDMOND, Millbrook P.O. and Stn.

DURHAM CATTLE FOR SALE

I have for sale two young bulls, 8 months old, sired by Imp. Rustic Chief—4019—(796777); also a few females, among them a young cow fit for any showing.

HUGH THOMSON, Box 556, St. Mary's, Ont.

Sheep and Cattle Labels Will enable you to properly take care of your stock. Write to day for circular and sample. Address **F. G. James, Bowmanville, Ont.**

HIGHGROVE JERSEY HERD.

Our present offering is: a few choice heifer calves from 2 to 8 months old, which, considering quality, will be sold reasonable.
ROBT. TUFTS & SON, Tweed P.O. & Stn.

Brampton Jersey Herd For sale: 10 bulls from 6 to 18 mths old, descended from St. Lambert or imported stock; also females of all ages. For full particulars address: **B. H. BULL & SON, Phone 68, Brampton, Ont.**

When Writing Please Mention this Paper

FOR SALE AT FARMERS' PRICES Registered Jersey & Guernsey Bulls

all ages, including a pure St Lambert bull, 4 years, and one Guernsey bull, 2 years, out of imported dam. Others equally bred and good individuals. All were exhibited at Ottawa and Sherbrooke, 1906, and won in their respective classes. A rare chance to get a dairy bull, also a few females. Address: **E. PHELPS BALL, Lee Farm, Rock Island, P. Q.**

Pine Ridge Jerseys For sale very cheap some choice young bulls, bred in the purple, of ideal type; also a few heifers and heifer calves, and some Cotswold shearing rams and ram lambs. **Wm. Willis & Son, Newmarket P. O. & Sta.**

Ayrshires and Yorkshires We always have on hand choice animals of above breeds, of any desired age. Prices reasonable & rise us before buying. Intending purchasers meet at Hoard's. **Alex. Hume & Co., Menie P. O.**

Ayrshire Bulls—A select pair (13 months old) by a son of the champions **Douglasdale (imp.)** and **Minnie of Lessnessock (imp.)**, and out of daughters of imp. cows; also two March calves and one May (all select).
W. W. BALLANTYNE, Long-distance phone, Stratford, Ont.

Wardend Ayrshires We are offering young bulls from 1 to 3 years old; also a choice lot of spring calves from deep milking dams. Sired by **White Prince of Menie No 1825**; bred by **A. Hume, Menie, F. W. TAYLOR, Wellman's Corners, Hoard's Stn., G. T. R.**

HIGH-CLASS AYRSHIRE CATTLE Bulls and heifer calves, two to nine months old, cows and heifers all ages. Prizewinners from this herd include **Tom Brown** and **White Floss** sweepstakes at Chicago. **DAVID BENNING & SON, "Glenhurst," Williamstown, Ont.**

SPRINGBURN STOCK FARM, North Williamsburg, Ont., H. J. Whitteker & Sons, Props., breeders of pure-bred Ayrshire cattle, Oxford Down sheep, Berkshire pigs, and Buff Orpington fowls. Young stock for sale. Visitors welcome.

RIVERSIDE HOLSTEINS

THE RIVERSIDE HERD of Advanced Registry Holsteins has for immediate sale a dozen young bulls from 3 to 11 months of age, sired by **Johanna Rue 4th's Lad**, whose five nearest dams have butter records averaging 22.86 pounds of butter in seven days, and out of **A. R.** dams and their daughters.

M. RICHARDSON & SON, Caledonia, Ont.

CENTRE AND HILLVIEW HOLSTEINS Bulls 1 year and under for sale, from Great-testing dams and sires, all in A. R. O. Records. Our prizes in milk test in America's A. R. O. Records is, 1st prize in 30-day; 5th in 7-day; 5th in 7-day, over 8 months milking.

P. D. EDE, Oxford Centre P.O., Woodstock, C.P.R. or G.T.R.

MAPLE GROVE HOLSTEIN HERD is made up of Record of Merit cows and heifers with large records and headed by Lord Wayne Mechtildie Calamity. Young bulls fit for service at reasonable prices. **Walburn Rivers Fold-n's, Ont.**

Glenwood Stock Farm—Holsteins and Yorkshires. Holsteins and Yorkshires, all sold out. Have a few young Yorkshires sows, about 2 months old, for sale cheap. True to type and first-class. Bred from imported stock. **THOS. B. CARLAW & SON, Warkworth P.O., Campbellford Stn.**

HILTON STOCK FARM—Holsteins, Cotswolds and Tamworths— Present offering: Some young cows; a nice lot of young pigs; few boars six months old, and sows in pig. **R. O. MORROW & SON, Hilton P. O., Brighton Tel. and Stn.**

QUESTIONS AND ANSWERS. Miscellaneous.

FEED TO PURCHASE—SORGHUM.

I have clover hay, wheat straw by itself, oat and barley straw mixed (all straw cut when threshed); sugar cane, and of grain, oats and barley as it grew.

1. What food would be the most economical to buy to complete ration for cows and steers?
2. What are the constituents and nutritive ratio of sugar cane?
3. How does sugar cane compare with ensilage in food constituents and value?

E. M. Z.

Ans.—1. A balanced ration could be made from the above materials alone, but it would not include much of the sugar cane and straw. Unquestionably, the proper materials to buy would be oil-cake meal, cottonseed meal, gluten meal, or bran, named in order of preference. For the sake of calculation, we supposed a daily ration made up of: Clover hay, 10 lbs.; oat and barley straw, 3 lbs.; sugar cane, 5 lbs.; oat and barley chop, 5 lbs. This would be hardly sufficient for either cow or steer, but gives us a working basis. The ration named would contain about 1.324 pounds protein, 8.927 pounds of carbohydrates, and .367 pounds fat. As is well known, fat and carbohydrates serve similar purposes in the animal economy, though a pound of fat is worth 2.3 pounds of carbohydrates. Expressed in terms of carbohydrates, our ration would have 8.927+.8541=9.771 pounds of carbohydrates and fat. This gives us a nutritive ratio of 1.324:9.771 or 1:7.4, which is rather too "wide" for steers, and entirely too wide for milch cows. Addition of 1 1/2 lbs. oil-cake meal to the above would give us 1.684 lbs. protein, 9.395 lbs. carbohydrates, and .520 lbs. fat (nutritive ratio of about 1:6.3).

Just what is the ideal nutritive ratio is impossible to state dogmatically, but 1:6.3 would not be far astray for steers. For milking cows, such a ration would be further improved by adding a little more clover hay and a little bran, gluten or cottonseed meal. A little bran is always a good thing to feed, though at present prices, oil cake is a more economical stuff for balancing the ration. Of course, individual requirements of animals vary greatly, but the above, we trust, will serve as a working guide. Two or three pounds of wheat straw may be substituted for an equal amount of oat or barley straw without seriously altering the nutritive value.

2. In Jordan's "Feeding of Animals," we find the following comparison of sorghum with dent and flint corn fodder, all being analyzed in the green state:

Per cent. water.	Per cent. protein.	Per cent. carbohydrates.	Per cent. fat.
79.4	1.3	11.6	.5
79.8	2.	12.1	.7
79.	1.7	12.	.5

According to the above, sorghum is poorer in protein than is ordinary corn fodder (corn fodder in these analyses being rather thickly planted corn that has not been husked). On a basis of the above figures, the nutritive ratio of green sorghum would be 1.3:11.6+.5 or 2.3:13.1+.6=1.3:12.7+.1=1.3:12.8. The nutritive ratio of the flint corn,

Lump Jaw

The first remedy to cure Lump Jaw was **Fleming's Lump Jaw Cure** and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in **Fleming's Vest-Pocket Veterinary Adviser**. Most complete veterinary book ever printed to be given away. Durably bound, indexed and illustrated. Write us for a free copy. **FLEMING BROS., Chemists, 45 Church Street, Toronto, Ontario**

HOLSTEINS FOR SALE

Four imported and one home-bred bulls, from 8 to 19 months old; also our entire crop of spring bull calves, from week old up, sired by the grandly-bred imp. bull, **Sir Howitz B. Pietertje**, whose dam record is over 80 lbs. milk in one day, and from great-producing cows of the most fashionable strains. Can spare a few cows and heifers, from one year up; 75 head to select from. Cheese 13c. Don't delay if you want one from this herd.

H. E. GEORGE, Crampton, Ont.

Cows from the ANNANDALE HOLSTEIN HERD

Have won during the past show season at Ottawa first and sweepstakes on cow, first on 3-year-old, first on 2-year-old class. At Guelph (dairy test) first and second in sweepstakes on cow, first and second in heifers. At Chicago (National) first and sweepstakes on cow, also second-prize cow second and third on 2-year-olds, second on 1-year-old heifers, and a host of other prizes (different cows at different shows). Bull calves, 4 months and under only, for sale from great dams and greatest of sires. Buy young if you want them from Annandale Stock Farm.

GEO. RICE, Tillsonburg, Ont.

WOODBINE HOLSTEINS

Herd headed by **Sir Mechtildie Posch**, absolutely the best official-backed sire in Canada. Dam **Isabelle Jewel Mechtildie**, 35.8 pounds butter in seven days. Champion cow of Canada over all breeds. Sire's dam, **Alma Posch 4th**, holds the world's largest two-day public test record—6.6 pounds butter. Young bulls of the choicest quality for sale.

A. KENNEDY, Agr. Ont., Ayr, C.P.R.; Paris, G.T.R.

HOLSTEINS AND YORKSHIRES

R. HONEY, Brickley, offers for sale a choice lot of young boars fit for service; also sows ready to mate.

Greenwood Holsteins and Yorkshires

For sale: A few richly bred bulls from one to eighteen months old. Also a few choice females of all ages. Yorkshires of either sex.

D. Jones, Jr., Caledonia P. O. and Sta.

A FEW HOLSTEIN BULLS

fit for service, for sale at reasonable prices. Choice females, all ages. If you are willing to pay good prices for good stuff, write me.

G. W. CLEMENS, St. George, Ont.

Lyndale Holsteins.

For Sale A number of bull calves from one to four months old, out of Record of Merit cows, and sired by **Beryl Wayne Paul Concordia**, whose four nearest dams have official butter records averaging 23 lbs. 11 oz. each. **BROWN BROS., LYN, ONT.**

"GLENARCHY" HOLSTEINS

43 head of big, deep flanked, heavy-producing Holsteins, many of them milking from 50 to 60 lbs. a day on grass. Young stock of both sexes for sale. A straight, smooth lot. **G. MACINTYRE, Renfrew P. O. and Stn.**

GROVE HILL HOLSTEINS—We now offer for sale our stock bull, **Verhelle 4th's Count Calamity** Born December, 1902. Only two of his daughters have been tested, and both are in Record of Merit. He is a show animal, and a persistent stock getter. If you want a bargain write: **F. R. MALLORY, Frankford P. O. and Stn., C. O. R. Trenton Stn., G. T. R.**

MAPLE PARK HOLSTEINS

Home of the great **De Kol Pietertje** and **Posch** families. **Schulling Sir Posch**, son of **Annie Schulling**, testing over 4% butter-fat officially, and grandson of **Alta Posch**, stock bull. **S. MACKLIN, PROP., STREETSVILLE.**