best only .82 %; while, as regards starch, sugar, &c., the average is 8.36 %, the best 12.83 %, and Mr. Drummond's 11.26 %. but as these carbo-hydrates are only worth about ½ of a cent a pound, the inferiority in this constituent is of no great importance.

Surely, after this, there can be no doubt, as to the proper corn for silage. If *sweet*-corn without the grain produces such valuable feeding matter, what would it do with the cobs on?

Sexes at will.—So long ago as 1520, Dr. Huarte, a Spaniard, or rather a Navarrese, published a pamphlet, in French, on *L'art de procréer les sexes à volonté*, i. e. "The art of begetting male or female offspring at will." This was translated into English about 1630, and published in a curious collection called. "The tryal of Wits;" but I cannot find a copy of it nearer than the British Museum. Would it aid our breeders in securing bull-or cow-calves at will? May be.

Turnips.—"The feeding value of the English turnip," says Dr. Hoskins, "is very much underrated. Cows, not only dry, but in milk, can be made fat on them with but very little hay and grain—in fact, without any grain. We have had a visiting butcher, in February, put his hand on cows so fed and say he had not handled better beef all the winter. If fed directly after milking, the odor will not appear in milk or butter." I am glad to hear such favourable testimony from so practical a man as Dr Hoskins. By turnips, I conclude, the writer means swedes as well as the different kinds of white rounds, strap-leaf, &c. I should be very glad to hear that Dr Hoskins had tried a fair experiment between the same weight of swedes and of silage-corn, both as regards milk and meat-production. If he tries it, I am perfectly certain no preconceived ideas will divert him from drawing a fair deduction from the premises.

By the bye, if Vermont turnips and hay will fat a beast, they must be very superior to our South of England roots, which will only keep a bullock or a sheep in fair growing order. There is still a great deal to be discovered on this point. Why will Aberdeenshire turnips and straw fatten a beast when Kentish turnips and the best hay won't? Why will roots grown on the low seaside lands of Sussex ripen sheep, when the upland roots, grown only 15 miles off, will only keep them in decent condition? The answer is: Nobody knows.

Again Dr Hoskins says again: "Hay- and gra.. caps are the means of saving much money. These and *root-growing* are good things that American farmers fail to appreciate at their true worth." Just read Séraphin Guèvremont's article on Herd Crops, taken from the Report—1890—of the Dairymen's Association of the Province of Quebec, which will be found at p. 156 of this number of the Journal, and see whether there is not at least one *American* farmer who "appreciates growing roots at its true worth."

Stimulants.—Why will people continue talking of artificial manures as *stimulants*. They do not call the constituents of farmyard dung so; and yet the nitrogen, phosphoric acid and potash of guano are as much plant food in the strictest sense as the same matters in dung. A stimulant acts on the nervous system; how then can either land or plants, which have no nerves, be stimulated? What analogy can exist between brandy and nitrate of soda? The plants themselves will show what kind of food they require by their appearance Look, in spring, at your young wheat, for instance; does it look pale and sickly? It is starving for want of nitrogen. Give it a fair dose of that in the form most available; its whole appearance will be changed as if by magic, and it will at once exercise its renewed power of availing itself of the mineral matter in the soil, matter always present, but which the plant, before the dose of nitrogen was exhibited, *was incapable* of assimilating.

Nitrification.—Dr Hoskins does me the honour to read my lucubrations in this publication. Would he have the kindness to explain the grounds of the two opposite statements contained in the following extract from the Country Gentleman? I do not see the Rural New Yorker, so I am utterly in the dark as to the discussion, wherefore I forbear to say more about it.

"*Nitrification.*—In the Rural New-Yorker of Aug 1, in reply to the question, "Does Sunlight Injure Land?" I see that T. H. Hoskins of Orleans County, Vt, says, "nitrification is favored by darkness and moisture," and Prof. L. P. Roberts, of the Cornell experiment station, says, "sunlight and heat hasten nitrification, and the result is a positive addition of nitrogen to the soil." When the doctors disagree, who shall decide?" E.

Pease vs. bran.—Here, again, is a curious statement, made by a man who is supposed to know, *practically*, all about the feeding of dairy-cows, and contradicted by one who is at the head of the New-York Experiment Station:

Pea Meal versus Bran.—In your issue of July 23, page 602, in reply to the question. "Shall We Grow Peas for Forage?"—Ex Gov. Hoard is quoted as saying. "By all means; peas are one of the finest butter foods in the world. One pound of pea meal is equal in feeding value to six pounds of wheat bran." I give below the analyses of pea meal and wheat bran according to German and American authorities:

	Pea Meal.		Wheat Bran.	
	German	Amer'n.	German	Amer'n.
Albuminoids.....	22.4	20 77	14.0	15 19
Carbohydrates...	52.3	55.75	50.0	53.72
Crude fibre.....	9.2	4.06	17.8	9.33
Fats	2.5	1.43	3.8	3.68

From the above analyses it will be seen that both pea meal and wheat bran, as is pretty generally known, are valuable foods, and from the analyses also it would be rather difficult, without careful trial, to determine which of the two was the more valuable, and I think none would be disposed to agree with the above statement credited to Ex Gov. Hoard.

New-York State Exp't Station. Peter Collier.

Judging from the valuation of the constituents of pease-meal and bran given in Stewart's book on feeding cattle viz:

Albuminoids per pound 4½ cents.
Fat..... 4½ do
Carbohydrates..... .9 do

The pease-meal should be worth $1.44 per 300 lbs, and the bran $1.01 per 100 lbs. But Stewart's analyses are very different from those given by Mr. Collier:

Pease—Digestible nutrients.

Albuminoids.	Carbohydrates.	Fat.
20.2	54.4	1.7

Bran—Digestible Nutrients.

Albuminoids.	Carbohydrates.	Fat.
10.0	48.5	3.3