sure to make after trouble; 2. using uncrushed linseed, or as the Americans call it, flaxseed; 3. tying up a calf, intended to be reared, not for the butcher, whereas exercise is a prime necessity for all young animals.

## THE COMPOSITE TEST FAIR

PROF J. B. LINDSEY, MASS., EXP, STA.

Why does not the composite cream test agree with individual test? Admitting that the composite and individual tests do not agree, is it fair to take the same size sample from a patron who makes 50 lbs of cream a day as from the one who makes but 10 lbs ?---[L. W. P.

Cream raised by the Cooley process is liable to vary more or less from day to day in the percentage of butter fat. Hence the composite test is used to get the average percentage of the cream. It is expected therefore that a single sample of cream will not test the same as an average of all the samples, that is, the composite sample. It is perfectly fair to take the same sample from each patron, whether he makss 10 or 50 lbs per day, provided that in each case the cream is well mixed. If one patron has but one can of cream and another has five cans, a sample must be taken from each of the five cans and this will give naturally a larger sample than from the patron having one can to be sampled. If, however, the patron's five cans were all poured into one large tank and mixed, one sample, no larger than from the person having one can of cream only, would do.-Farm and Home.

## THE JERSEY-AYRSHIRE CROSS

The Ayrshire-Jersey or the Jersey-Ayrshire cross is excellent, one of the best for the dairy. It gives hardiness and quantity, and will take nothing from quality, if the bull is wisely chosen. Get a bull from a cow with good shaped udder, teats of fair size and producing milk of not less than 4 % butter fat by Babcock test results may be expected if the cows of the herd are fairly good. J. D. W. French, Mass.

In my opinion there is no breed of cattle that will cross better with the Jersey than the Ayrshire. (1) For a dairy cow, I think a cross with a dark red or brown family having a few small white spots would give color, strong constitution, a good feeder, increased size, improve the form, especially the udder, and make a desirable cow. Obadiah Brown, R. I.

The experiment of crossing Jerseys and Ayrshires was tried nearly 50 years ago in New London Co (I think by a Mr Fitch) for the purpose of uniting the the good qualities of both for a family cow. The enterprise was abandoned on the death of Mr. Fitch, though it seemed to be a success in his hands.--[T. S. Gold, Ct.

In my opinion there is no breed that will give one so good a paying dairy cow as the cross of the Guernsey on high-grade Jersey, Durham or Ayrshire cows. It will give good size, open-built, well-uddered animals, that will give the highest natural colored milk, cream and butter, and also a good constitution.—[W. H. Caldwell, Sec'y Guernsey Cattle Club.

The cross of Ayrshire bull on high grade and unregistered Jerseys is becoming quite common in Vermont and is steadily growing in popularity for the dairy. I am told by creamery men that they find the farmers get a larger money return for their cream when they cross an Ayrshire bull on their Jersey cows. I have seen several cows that were claimed to be from this cross and they certainly looked like wonderful dairy cows and were claimed to be such by their owners. They appear to be larger than the Jersey and of stronger constitution. Those that I have seen were, as a rule, light red and white-spotted, and made a Those who have tried the cross handsome cow. tell me they get considerably more milk from the cross-breeds, that it is as rich as the Jersey and that the cow is tougher, more quiet and a better all-round dairy cow.-[C. M. Winslow, Sec'y Ayrshire Breeders' ass'n, Vt.-Farm and Home.

Sow WHITE MUSTARD (1) in corn at the last cultivating. It will not injure the growth of the corn, but it will make a fair growth, and will prevent soluble nitrogen compounds from being washed out of the soil, if indeed the mustard does not have the faculty of taking nitrogen from the air. The mustard acts as a nitrogen conserver. It is, of course, to be plowed under in the fall, preparatory to sowing to fall grain. Use at the rate of

<sup>(1)</sup> Both are probably from same stock. See "Stephens' Book of the Farm." ED.

<sup>(1)</sup> Take care not to sow black mustard. It will stain the land for years. En.