# No. 417. THE SALE OF FOOD AND DRUGS LAW. CAP. 151.

#### REGULATIONS MADE UNDER SECTION 19.

In exercise of the powers vested in him by section 19 of the Sale of Food and Drugs Law, His Excellency the Governor, with the advice of the Cap. 151. Executive Council, has been pleased to make the following regulations:—

- 1. These Regulations may be cited as the Milk (Special Designations) Regulations, 1955.
  - 2. In these Regulations, unless the context otherwise requires—
  - "Dairy Registration Authority" means the Director of Agriculture or such other officer as the Director of Agriculture may authorise to exercise the powers and to perform the duties of the Dairy Registration Authority under the Dairies and Cowsheds Regulations;

S.L. I,

- "licence" means a licence to use a special designation granted by the Dairy Registration Authority under these Regulations;
- "prescribed test" means a test as specified in the Third Schedule to these Regulations;
- "registered premises" means any cowshed or dairy registered under the provisions of the Dairies and Cowsheds Regulations;

"summer" means the period between the 1st day of April and the 30th day of November, in any year;

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- "winter" means the period between the 1st day of December and the 31st day of March in any year.
- 3. The special designations under which milk may be sold or offered or exposed for sale in pursuance of these Regulations are the following, namely "Certified" and "Pasteurised".
- 4.—(1) No person shall use any designations, other than those specified in these Regulations, to describe any milk to be sold, offered or exposed for
- (2) No person shall use a special designation specified in these Regulations unless he holds a licence granted under these Regulations permitting the use of such a designation.
- 5. Every licence granted under these Regulations shall be in the form contained in the First Schedule hereto with such modifications, if any, as First the circumstances may require.

Schedule.

- 6.—(1) Every licence shall be valid for a period ending on the 31st day of December, in the year in which it is granted.
- (2) Every licence granted under these Regulations shall be subject to the conditions set out in the Second Schedule to these Regulations and to such other conditions as the Dairy Registration Authority may deem fit to impose.

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- 7. The Registration Authority may, if it is satisfied that any of the conditions upon which the licence is granted are not being complied with, suspend or revoke the licence.
- 8. The Dairy Registration Authority may publish a list of current licence holders at such times and in such manner as it may think fit,

## FIRST SCHEDULE.—(Regulation 5.)

# The Milk (Special Designations) Regulations, 1955. LICENCE TO SELL MILK AS "...."

This licence is not transferable and is subject to the terms and conditions prescribed in the above named Regulations and unless previously revoked will operate until the 31st day of December, 19

Dated this day of

, 19

## SECOND SCHEDULE.—(Regulation 6 (2)).

#### PART I.

General conditions subject to which licences may be granted. The holder of the licence shall—

(1) take such measures as the Dairy Registration Authority may require to ensure that the milk in respect of which the use of a special designation is authorised shall be kept separate at all times from all other milk;

(2) permit any officer duly authorised by the Dairy Registration

Authority—

(a) to inspect the processes of production, storage, treatment and transport of milk;

(b) to take samples of milk free of charge.

#### PART II.

Conditions subject to which licences for selling milk as "Certified" may be granted:—

(1) Milk bottles shall be closed by a metal foil cap approved by the Dairy Registration Authority which will overlap the mouth of the bottle and bear the words "Certified milk" and the name of the producer.

(2) Immediately after milking the milk shall be cooled to a temperature

not exceeding 10° C (50° F).

The milk, subsequently and until loaded for distribution shall be maintained under conditions satisfactory to the Dairy Registration Authority.

(3) The milk shall not be removed from the bottles or the caps broken

before delivery to the purchaser.

(4) All utensils used shall be sterilised by steam or by any other method approved by the Dairy Registration Authority.

(5) All containers used in the production and transport of the milk shall be of a pattern approved by the Dairy Registration Authority.

(6) No milk from any source other than the registered premises shall be mixed with the designated milk.

(7) A milk sample taken at any time before delivery to the consumer shall pass the Methylene Blue Test specified in the Third Schedule hereto to the satisfaction of the Dairy Registration Authority.

That is to say the milk shall fail to decolourise a standard Methylene Blue solution in not less than  $4\frac{1}{2}$  hours in summer and 5 hours in winter.

(8) The milk shall not at any stage be treated by heat.

(9) All milk sold under this licence shall be genuine cows milk conforming with the provisions of the Sale of Food and Drugs Law (Cap. 151) and any regulations made thereunder.

#### PART III.

Conditions subject to which licences for selling milk as "Pasteurised" may be granted:-

- A.—(1) Holding method.—The milk shall be retained at a temperature of not less than 62.8° C (145° F) and not more than 65.5° C (150° F) for at least 30 minutes, after which it shall be cooled immediately to not more than 10° C
- (2) The milk shall not be so heated more than once and shall not otherwise be treated by heat.
- (3) The type of apparatus used for pasteurisation and the methods employed shall be such as are approved for the purpose by the Dairy Registration Authority. Such recording and indicating thermometers as the Dairy Registration Authority may require shall be inserted in suitable places in the apparatus during the whole of the pasteurising process.

Or as an alternative to A above—

- B.—(1) Short time—High temperature (ST. HT.) method.—The milk shall be retained at a temperature of not less than 71.7° C (161° F) for at least 15 seconds and shall then be cooled immediately to a temperature of not more than 10° C (50° F).
- (2) Such indicating thermometers and recording thermometers as the Dairy Registration Authority may require shall be inserted in suitable places in the apparatus. The apparatus shall be thermostatically controlled and be provided with a device which shall automatically divert the flow of milk which has not been retained at a temperature of not less than 71.7°C (161°F) for at least 15 seconds. The type of apparatus and thermometer used and the methods employed shall be such as are satisfactory to the Dairy Registration Authority.
- C.—Conditions applying to both the methods specified in paragraphs A and B above:-
  - (1) Temperature records must be made and preserved for a period of not less than one month.
  - (2) After the milk is pasteurised it may not be placed in any vessel used at any time for unpasteurised milk.
- (3) Every vessel in which the milk is transported or exposed, or offered for sale, shall be of a design approved by the Dairy Registration Authority and shall be marked "Pasteurised milk". All milk bottles shall be closed by a metal foil cap, approved by the Dairy Registration Authority, which will overlap the mouth of the bottle and bear the words "Pasteurised milk" and the name of the producer.
- (4) A milk sample taken after pasteurisation and before delivery to the consumer shall pass the Methylene Blue Test and the Phosphatase Test specified in the Third Schedule to these Regulations to the satisfaction Third of the Dairy Registration Authority, that is to say :-

Schedule.

- (a) On being tested by the Prescribed Phosphatase Test it shall give a colour reading not stronger in density than comparator standard No. 10.
- (b) It shall fail to decolourise a standard Methylene Blue solution in not less than 30 minutes.
- (5) All utensils used shall be sterilised by steam or by any other method approved by the Dairy Registration Authority.
- (6) All containers used in the production and transport of the milk shall be of a pattern approved by the Dairy Registration Authority.
- (7) All milk sold under this licence shall be genuine cows milk conforming with the provisions of the Sale of Food and Drugs Law, and any Cap. 151. regulations made thereunder.

### THIRD SCHEDULE. PART I.

## METHYLENE BLUE TEST.

(1) Methylene Blue tablets manufactured under arrangements made by the Minister of Food in the United Kingdom shall be used for the test.

One standard Methylene Blue Milk-testing tablet shall be dissolved in When completely dissolved 200 c.c. of cold, sterile, glass distilled water. the solution shall be made up to 800 c.c. by the addition of a further quantity of cold, sterile, glass distilled water. The solution shall be stored in a cool dark place and must not be exposed to sunlight and shall not be used if more than 60 days have elapsed since the date of preparation.

## METHOD OF CARRYING OUT THE TEST.

(2) 10 ml. of the milk sample shall be measured into a sterile test tube of a type approved by the Dairy Registration Authority, and 1 ml. of the Methylene Blue solution added. The tube shall be closed with a sterile rubber stopper, and inverted twice so as to mix thoroughly. Within five minutes the tube shall be placed in a water bath at a temperature of between 37°C and 38°C. The interior of the bath shall be kept completely dark.

(3) The tubes shall be inspected at half hourly intervals and any tube

containing milk which has become decolourised removed.

(4) Times elapsing before the commencement of tests—
(a) Samples of "Certified" milk in the case of morning's milk shall be tested at 4 p.m. on the day of production, and in the case of evening's milk at 9 a.m. on the day following.

(b) Samples of "Pasteurised" milk will be tested at 9 a.m. on the day

following the taking of the sample.

(5) All samples will be kept at from 12°C to 20°C up to the time when

the test is due to be carried out.

(6) When the test of a sample cannot be carried out immediately at the end of the period for which the sample is to be kept, the sample shall be cooled to and kept at a temperature of between o°C and 4°C for a further

period not exceeding 24 hours until the test can be carried out.

(7) Samples which have to be sent for a distance of more than 20 miles shall, during the summer period, be cooled immediately and packed in ice. After arrival at the laboratory the sample shall be kept at from o°C to 4°C until 5 p.m. on the day of sampling when it shall be taken out for overnight storage at from 12°C to 20°C in the manner prescribed for afternoon samples.

### PART II. PHOSPHATASE TEST.

(1) Samples of milk shall be examined as soon as possible after being taken.

(2) If samples are not examined immediately on arrival at the laboratory they shall be kept at a temperature of between o°C-6° C until examined. All samples shall be raised to room temperature before being examined.

(3) All glassware shall be cleaned by prolonged treatment in chromic acid, followed by rinsing in tap water and distilled water and then dried. All glass ware shall be stored under dust-free conditions and new rubber stoppers shall be boiled repeatedly in distilled water and stored free from dust. Stoppers shall always be boiled in water just prior to use.

(4) The solutions used shall be prepared as follows:-

Reagents:

(a) Buffer. The following solutions shall be prepared:

(i) A one tenth normal solution of Hydrochloric acid standardised by titration.

(ii) A one tenth molar solution of sodium carbonate (10.6 grammes per

(iii) A one tenth molar solution of sodium barbitone (20.6 grammes per litre).

If desired the solutions of sodium carbonate and sodium barbitone may be mixed in equal proportions and preserved by the addition of 10 ml. of chloroform per litre of the mixed solutions.

(b) Substrate. This shall be disodium p-nitro-phenyl phosphate. The combined buffer-substrate solution must be freshly made up before use and shall be prepared in the following manner:—

The buffer solution shall first be prepared by mixing the reagent solutions Nos. 1, 2 and 3 in the following proportions:—

(i) N/10 Hydrochloric acid solution

7 ml.

(ii) M/10 Sodium carbonate solution

25 ml.

(iii) M/10 Sodium barbitone solution

25 ml.

57 ml.

o.15 grammes of substrate (disodium p-nitro-phenyl phosphate) shall be dissolved in 57 ml. of the above buffer solution, and the buffer-substrate solution thus prepared shall be made up to 100 ml. by the addition of boiled and cooled distilled water. This final solution of the buffer substrate must be practically colourless.

- (5) Specialised Apparatus.
- (a) An all purpose Lovibond Comparator.
- (b) Disc APTW. containing 4 permanent yellow glass colour standards corresponding to the colour produced by 6, 10, 18 and 42 microgrammes of p-nitro-phenol per ml. of milk.
  - (c) Test tubes 13.5 mm. internal diameter calibrated at 10 ml.
  - (6) Technique.

10 ml. of buffer substrate solution shall be placed in a test tube which shall be stoppered and held in a water bath until its temperature has been raised to 37° C.

2 ml. of the milk sample under test shall then be added after which the tube shall be restoppered, mixed and incubated for 2 hours at 37° C.

A negative control shall be prepared for each batch of tests. This shall consist of boiled milk similar in colour to the samples under test. Highly coloured milk samples must be compared with an individual negative control prepared from the same milk. The above negative controls shall be made up in the same manner as the milk samples under test and shall be incubated at the same time.

After completing the period of incubation samples and controls shall be well mixed and examined in a comparator as specified above by a good source of north daylight.

## (7) Interpretation.

When compared with the negative control no sample shall be adjudged properly pasteurised if it has attained a colour stronger in intensity than comparator standard No. 10 which corresponds with 10 microgrammes of p-nitro-phenol per ml. of milk.

Made this 2nd day of July, 1955.

By Command of His Excellency the Governor,

G. P. CASSELS,

Clerk of the Executive Council.

(M.P. 8042/54.)