GRADE "A" PASTEURIZED MILK ORDINANCE

1965 Recommendations
of the United States
Public Health Service

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
Bureau of Disease Prevention and Environmental Control
National Center for Urban and Industrial Health
Environmental Sanitation Program

DSW 379439

g equipment has increased the
table will indicate the volumes
ng diameters:

e, followed by wash-and-rinse
-third the usual milking-time
ide the "take up" of collecting

aning, and similar milkroom

and of the individual milking
t not less than the minimum
s should be made aware of the
is impossible without adequate
a supply which exceeds their
hortages and allows for normal

commendations on hot water
ailable from power companies,
gents, and State universities.
powered by gasoline or diesel
arn, or in any communicating
arn. Such equipment is char-
charge of fumes. The spaces
uently become gathering places
ve planning, these engines and
detriment to their performance,
rn or milkhouse.

ie efficient withdrawal of milk
or causing injury to the udder.
oducers a cost which has been
astitis has been found to pose
ead of these is a gastrointestinal
rains of staphylococci.
tionship exists between mastitis
are known about mastitis, it is
by use of mechanically sound
The National Mastitis Council
ne which (1) maintains a stable
te for completely milking most
tissues of the teat by excessive

stretching and ballooning, (3) produces massage without harsh action, and (4) is designed so that the entire system can be sanitized efficiently and satisfactorily.

The Council considers proper milking procedure to include the following: (1) before the milking unit is applied to the udder the operator takes 30 seconds to prepare the cow in the recommended manner to obtain milk letdown, and the milking machine should be applied immediately thereafter, (2) the teat cups are attached in a manner to limit the volume of air drawn into the system, (3) the teat cups are positioned as low on the teats as practicable, (4) the operator stays near the machine and, at the end point of milk removal, the claw is briefly pulled down to open the teat cavity and remove the strippings. Stripping by machine should not extend over a period of more than 15 to 20 seconds. Prolonging stripping can be injurious to the udder, (5) before removing the machine, the vacuum to the teat cups is broken and the cups removed in a gentle manner, (6) to avoid over-milking, the operator should limit the number of machines in use. Two bucket type units, two movable pipeline units, or three fixed units, in a walk-through barn usually represent maximum workloads with conventional milking systems.

Hooded, or small-mouthed pails may be used for carrying only that milk which has been drawn into them by hand-milking. Their extended use as carrying pails is considered hazardous in view of their inability to be covered or otherwise protected from flies, dust, splash, etc.

INSECT AND RODENT CONTROL

The complete elimination of flies from the farm premises is practically unattainable. However, a major reduction of fly infestation is obtainable by the dairy farm operator who conscientiously follows a sustained program of sanitation, screening, and the proper use of insecticides.

The milk producer or plant operator must be continually aware of the potential hazard to men and animals which is inherent in most pesticides. It is important that he employ only those pesticides which are recommended by competent authority for the insect and rodent problems he seeks to overcome, and that he follow implicitly the manufacturer's directions for their use. Questions on the use of pesticides should be referred to the supervising health authority and/or county agricultural agent. U.S. Department of Agriculture Publication Nos. 270 and 283, and Agriculture Handbook No. 120 of the Agricultural Research Service and Federal Extension Service, also provide additional information on this subject.

Effective rodent control, like insect control, is dependent on sanitation for much of its success. The careful elimination of trash and woodpiles; the rodent proofing of feed bins, corn cribs, and similar structures; the prompt removal of spilled feed and manure to places of ultimate disposition; and the deliberate elimination of protected harborage areas in farm buildings, all tend to discourage rodents near the dairy farm. Such a program also pays excellent dividends in feed savings, lowered maintenance costs for farm buildings, reduced fire hazards, and lessened risk of disease outbreaks among farm animals.

In recent years, anticoagulant poisons (Warfarin—Fumarin, etc.) have offered improved means of controlling rodents on the farm. Used according to directions—and with due precaution against their consumption by domestic animals—these chemicals help keep the rodent population in check while additional preventive programs are instituted.

29. PESTICIDE RESIDUES

(1) The general method for pesticide residues, 29.001–29.027, was adopted official final action for BHC, *p,p'*-DDE, *p,p'*-DDT, lindane, methoxychlor, *p,p'*-TDE, and *o,p'*-DDT in dairy products.

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(2) The run-in head of the fourth paragraph of 29.014 was changed to read:

"(a) *Calculation for fruits and vegetables.*"

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(3) The following method for extracting dry or low moisture products with a mixture of water and acetonitrile, *JAOAC* 50, 623 (1967), 51, 892 (1968), was added to the general method for pesticide residues, 29.001–29.027:

29.009(e) *Dry or low moisture products, e.g., hays.*—Grind sample to pass No. 20 sieve. Add 350 ml 35% H_2O-CH_3CN (350 ml H_2O dild to 1 L with CH_3CN) to 20–50 g sample in blender (if larger sample is required add enough addnl extn mixt. to wet sample and permit thoro blending). (*Caution: See* 46.004 and 46.043.) Blend 5 min at high speed, and proceed as in (b), "Filter with suction . . ." Transfer $\leq$250 ml filtered ext (record vol. (*F*)) to 1 L separator.

29.014(b) *Calculations for dry or low moisture products, e.g., hays.*—Calc. g sample in Florisil column eluate as in fruits and vegetables, (a), except *T* = total vol. (ml H_2O in sample + ml 35% H_2O-CH_3CN added − correction in ml for vol. contraction). If H_2O content of sample is $\leq$10%, disregard and use vol. of extg mixt. as *T*.

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(4) The general method for pesticide residues, 29.001–29.027, was adopted official first action for aldrin, BHC, *p,p'*-DDE, *p,p'*-DDT, endrin, heptachlor, lindane, methoxychlor, and *p,p'*-TDE in barley, corn meal, hay, oats, popcorn, and wheat, and for carbophenothion, Diazinon, ethion, malathion, methyl parathion, parathion, and ronnel in barley, broccoli, cabbage, carrots, cauliflower, cucumbers, grapes, green peppers, mustard greens, oats, potatoes, squash, tomatoes, turnips, turnip greens, and wheat.

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(5) The following method for determination of BHC, *p,p'*-DDE, *p,p'*-DDT, *p,p'*-TDE, dieldrin, and heptachlor epoxide in fish, *JAOAC* 53, 1300 (1970), was adopted official first action (method becomes part of general method for pesticide residues, 29.001–29.027):

29.010(e) *Fish.*—(*Caution: See* 46.004, 46.011, 46.039, and 46.073.)

Weigh 25–50 g thoroly ground and mixed sample into high-speed blender. (If fat content is known or can be estd, adjust sample size so that max. of ca 3 g fat will be extd.) Add 100 g anhyd. Na_2SO_4 to combine with H_2O present, and disintegrate sample. Alternately blend and mix with spatula until sample and Na_2SO_4 are well mixed. Scrape down sides of blender jar and break up caked material with spatula. Add 150 ml pet ether and blend at high speed 2 min. Decant supernatant pet ether thru 12 cm buchner, fitted with 2 sharkskin papers, into 500 ml suction flask. Scrape down sides of blender jar and break up caked material with spatula. Re-ext residue in blender jar with two 100 ml portions pet ether and blend 2 min each time. (After blending 1 min, stop blender, scrape down sides of blender jar, and break up caked material with spatula; continue blending 1 min.) Scrape down sides of blender jar and break up caked material between extns. Decant supernatant pet ether from repeat blendings thru buchner and combine with first ext. After last blending, transfer residue from blender jar to buchner, and rinse blender jar and material in buchner with several portions pet ether. Pour combined exts thru 40 × 25 mm od column of anhyd. Na_2SO_4 and collect eluate in 500 ml Kuderna-Danish concentrator with plain tube. Wash flask and column with small portions pet ether and evap. most of pet ether from combined exts and rinses in Kuderna-Danish concentrator. Transfer fat soln to tared beaker, using small amts pet ether. Evap. pet ether at steam bath temp. under current of dry air to obtain fat. When pet ether is completely removed, weigh and record wt of fat extd.

Record wt of fat taken for cleanup. ((Wt fat for cleanup/wt fat extd) × wt original sample = wt sample analyzed.) If it is known that $\leq$3 g fat will be extd from particular sample, do not isolate and weigh fat before CH_3CN partitioning. Detn is then on basis of wt of original sample.

Proceed as in general method, 29.001–29.027, beginning with 29.011, with addition of following parenthetical phrase to 29.011 after "combine all exts in the 1 L separator" (line 10):

(If experience with particular sample indicates that cleanup may not be sufficient, perform partitioning as follows: Drain CH_3CN phase from first partitioning into second 125 ml separator contg 15 ml pet ether, shake vigorously 1 min, let layers sep., and drain CH_3CN into 1 L separator contg 650 ml H_2O, 40 ml satd NaCl soln, and 100 ml pet ether. Pass CH_3CN phase from each of 3 addnl partitionings thru same 15 ml pet ether in 125 ml separator. Shake vigorously each time and combine exts in 1 L separator.)

30. SPICES AND OTHE

(1) The official first action
mination of volatile oil in m
30.024, was adopted official fir

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(2) The following spectroph
the determination of extract
and paprika oleoresins, *JAOA*
adopted official first action:

Extractable Color—Offi

(Applicable to paprika and

30.A01 *Appa*

(a) *Spectrophotometer.*—Cap
measuring *A* at 460 nm and
stoppered cells.

(b) *Std color soln.*—Dry Co
1 week in desiccator over Drie
$K_2Cr_2O_7$ and 34.960 g dried
1.8*M* H_2SO_4 and dil. to 1 L w
1 cm cell at 460 nm = 0.600.

30.A02

(a) *Paprika.*—Use ground p
capsicums to pass No. 40 si
weighed sample contg 70–100
100 ml vol. flask, dil. to vo
stopper tightly. Shake flask a
room temp. in dark. Shake
particles settle 2 min. Transf
spectrophtr cell with 10 ml pi

Det. *A* of sample at 460
blank. Det. *A* of std color soln
H_2SO_4 as blank.

(b) *Oleoresin.*—Weigh, to n
mg sample on 5 cm square
paper with sample in 100 ml vo
with acetone. Ext ≥15 min wi
Transfer, with 10 ml pipet, 1
100 ml vol. flask and dil. to vo
dild ext thru Whatman No.
discard first 10–15 ml filtrate.
trate into cell and measure *A*
tone as blank.

30.A03

To correct for instrument ar
correction factor = I_f = 0.60
nm. Redet. I_f each time spe

Range of *A* should be 0.30
$A > 0.70$ with acetone to ½ o
exts with $A < 0.30$ and ext la

ASTA color value for paprika
= [(A_{ext} at 460 nm)