QUALITY CONTROL REPORT FOR BRINING AND SALTING CUCUMBERS

Providing a means of following the active fermentation and evaluating the quality of the cured, brine-stock pickles as to firmness and bloater content.

Company _____ Brining Station _____ Location _____

Tank No. _____ Capacity in Bu. _____ in Cwt. _____ in Gal. _____

Date Filled _____ Time _____ a.m. p.m.; Time Headed _____ a.m. p.m.; Time Brined _____ a.m. p.m.

I. Green-Stock in Tank—Sizes[1] and Amounts. (List Number of Bushels or Hundredweight)

Date added	Size	Size	Size	Culls and Oversize	Total in Tank		Remarks on Stock, Source, Lot No. and Condition
					Bu.	Cwt.	
Total							

[1] Sizes commonly in use: No. 1's, up to 1-1/16 inches in diameter; No. 2's, 1-1/16 to 1-1/2 inches; No. 3's, 1-1/2 to 2 inches; No. 4's over 2 inches.

Salt Added on Head After Brining: 1st Addition _____ lbs; 2nd _____ lbs; 3rd _____ lbs.

Draining: Scheduled Time _____ a.m. p.m.; Actual Time _____ a.m. p.m. Recorded by _____

II. Quality of Cured Brine-Stock Pickles When Tank is Opened or Graded: Date _____

A. Firmness of 20 pickles[1], measured by the USDA Fruit Pressure Tester with 5/16 inch tip.

Sample No. & Location	Pickle Size Tested	Pounds resistance for Pickle Number																				Average (lbs)
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
1)																						
2)																						
3)																						

[1] Selected for uniform size pickles, fairly straight, and free from bloaters, crooks, nubs, and 2 or 4 carpels. **Firmness Ratings:** 18 pounds resistance and above = Very Firm; 14 to 17 = Firm; 11 to 13 = Inferior; 5 to 10 = Soft; 4 and below = Mushy.

B. Bloater Content of 50 to 100 Pickles[1]

Sample No. & Location	Pickles		Bloaters Found[1]							
	Size	No. Cut	Balloon Type		Lens Type		H.C.[2] Type		Total	
			No.	%	No.	%	No.	%	No.	%
1)										
2)										
3)										

[1] Selected for fairly uniform size, shape, and 3 carpel development. With balloon bloaters, the carpels separate because of gas pressure and press the tissue toward the skin leaving a large cavity with much loss of liquid from the cucumber tissue. For lens bloaters, the gas pockets are smaller and are lenticular in shape (bi-convex) and usually occur perpendicular to the long axis of the cucumbers.

[2] Honeycomb; consists of a small (2-5 mm diameter) cavity that forms around individual, immature seeds of the cucumber. It is helpful to give an idea of the extent or degree of bloater damage. This can be done by using the letter "A" to mean advanced or extensive damage, with large cavities; "M" meaning moderate damage, less than one-half of the cavity areas as for advanced bloating; and, "S" meaning bloating was slight, but still noticeable. The latter category, as well as the H.C. type of bloating, is not, as a rule, recorded by most pickle companies.

[3] Rating sheets (devised by personnel of the U.S. Food Fermentation Laboratory) for use in evaluating cured brine-stock pickles as to **"Overall Commercial Acceptability"** can be obtained from Pickle Packers International, Inc., P. O. Box 31, St. Charles, Illinois 60174.

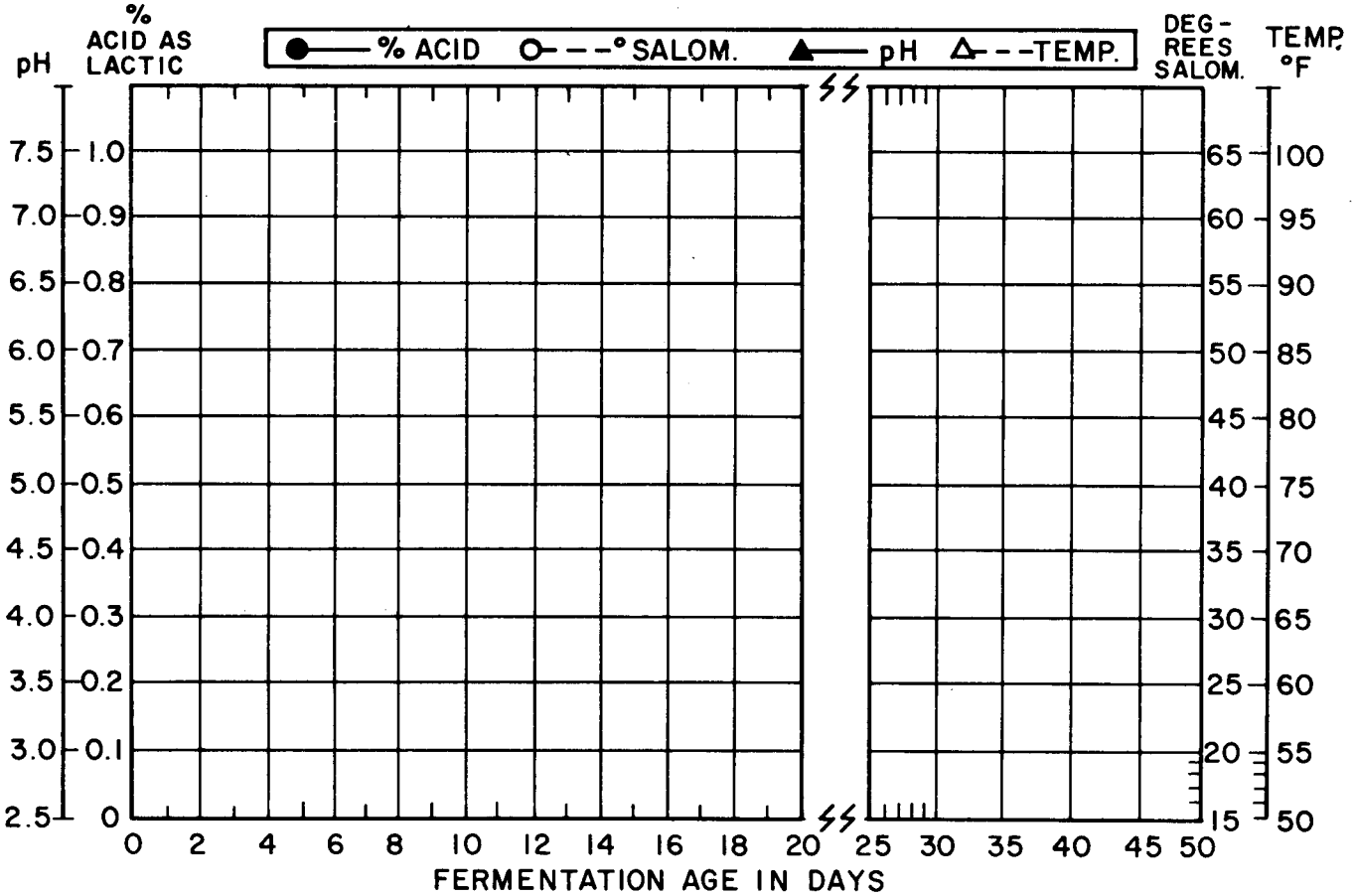
III. Suggested Determinations to Be Made on the Brine; During the Active Fermentation Period and Storage (up to 50 Days).

Determination or Procedure	Write appropriate dates in the spaces provided for the fermentation age in days printed below:																		
	0	1	2	3	4	6	8	10	12	14	16	18	20	25	30	35	40	45	50
Salt added; in cwt[1] (cumulative)																			
Salt; ° Salometer, Top & Bottom T→ B→																			
Acidity; as lactic, %																			
pH																			
Temperature; °F (center area of tank)																			
Days needed for positive Q-BAT[2] (√)																			
Turbidity; visual (0 to 5+); or, light transmittance, %																			
Reducing sugars; %																			
Microscopic yeast count; thous./ml																			
CO_2; mg/100 ml brine																			

[1] For salt additions made on days not shown above, list them with the correct date written above amount of salt. For a 25° salometer treatment that has reached 0.6% acid in about 10 days, the brine strength should be increased 5° salometer per week to the holding strength.

[2] Quick Brine Acidity Test (J. Food Sci., Vol. 36: 1036-1038 (1971).

IV. Fermentation Curves[1] (prepared from Part III data).



[1] If desired, pens using different colored inks can be used for plotting fermentation data, instead of the symbols shown above.

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