

## ANEXO 1: CARACTERÍSTICAS DE PRODUCTORES/ PROVEEDORES

Características de productores/as proveedores	Jambi Kiwa	Cedein	Fundación Salinas	Promoción Humana	Unorcacht
<b>Ingresos prom. \$/mes</b>	entre 30-80	entre 15- 22	entre 5 – 60	entre 20-50	entre 15-90
<b>Ubicación geográfica</b>	Chimborazo	Chimborazo	Bolívar	Bolívar	Loja
<b>Descripción de actividades de los productores/as</b>	Labores culturales Cosecha Acopio y entrega a Jambi Kiwa que organiza recolección Entrega en planta	Labores culturales Cosecha Organización de transporte común Entrega en planta	Recolección Labores culturales Cosecha Postcosecha Entrega en empresa esencias	Recolección Labores culturales Cosecha Transformación Transporte	Labores culturales Cosecha Transporte a la casa Arreglo y lavado Transporte a centro de acopio
<b>Riesgos</b>	Enfermedades y plagas del cultivo Clima	Enfermedades y plagas del cultivo Clima Pérdida del producto por no orden de cosecha de CEDEIN	Enfermedades y plagas del cultivo Clima Incertidumbre en mercado	Enfermedades y plagas del cultivo Clima	Enfermedades y plagas del cultivo Clima

	Jambi Kiwa	Cedein	Fundación Salinas	Promoción Humana	Unorcacht
No proveedores	228	378	60 permanentes 140 ocasionales	107	86
Has en producción de hierbas (en huertos)	15-18	5	1	3	4
Capacidad instalada	15.000 kilos mes de hierba en fresco	3.500 kilos mes de hierba en fresco	264 kilos mes de hierba en fresco 1 deshidratadora 6 lts/mes	500 kilos mes de hierba en fresco 6 deshidratadoras con capacidad de 60 kilos por parada	5.240 kilos mes de hierba en fresco
Hierbas ofertadas	53 hierbas 3 formulaciones → diurética, expectorante, adelgazante	10 hierbas	13 hierbas 2 formulaciones → 12 hierbas y 4 hierbas 8 esencias	28 hierbas 1 formulación → Te de la vida	9 hierbas 1 formulación → horchata lojana
Capacidad promedio de oferta mensual de hierba en fresco (kilos) de sus productores	Hierba Luisa - 5000 Manzanilla - 4000 Toronjil - 200 Albahaca - 100 Alcachofa - 100 Menta - 100 Escancel - 100 Borraja - 100	Manzanilla - 2000 Menta - 2000 Hierbabuena - 500 Toronjil - 500	Ciprés - 340 Eucalipto - 200 Pino - 200  Hierba Luisa - 700 Manzanilla - 180 Menta - 250 Nachag - 180	Caballo Chupa - 500 Congona - 500 Guaviduca - 500 Hierba luisa - 1000 Llantén - 300 Malva olorosa - 500 Menta piperita - 1000 Ortiga - 1500 Orégano - 500 Toronjil - 300	4000 kilos mensuales de hierba en fresco para horchata  Borraja - 80 Cucharillo - 50 Hierba buena-100 Manzanilla - 100 Tilo - 50
Principales hierbas					
Productos ofertados	<b>Productos al granel:</b> Hierba en polvo, te, hoja seca y granulado <b>Productos finales:</b> Infusiones individuales y te medicinales, condimentos, te aromáticos, champú, cremas, zumo de valeriana, baños aromáticos.	<b>Productos al granel:</b> Hierba en fresco Hierba en seco y polvo	<b>Productos al granel:</b> Hierba en seco, en polvo y granulado <b>Productos finales:</b> Aceites esenciales Infusiones individuales Infusión de las 12 hierbas Ungüentos Shampoo Crema de caracol Desinfectantes	<b>Productos al granel:</b> Hierba en fresco Hierba en seco <b>Productos finales:</b> Infusión Te de la vida Infusiones individuales Aceites esenciales	<b>Productos al granel:</b> Hierba en fresco Hierba en seco y polvo <b>Productos finales:</b> Infusión y te de Horchata Lojana Infusiones individuales
Mercados	Venta a nivel local comisariatos y tiendas naturistas Industria del te y fitofármacos Exportación a Canadá	Industrias del te Laboratorio	Comercializadora Nacional Exportación a Italia	Venta a nivel local comisariatos y tiendas naturistas	Tiendas y supermercados Industria del te

## ANEXO 2: CUESTIONARIO

### CUESTIONARIO

1.- De acuerdo a su sexo designe marcar con una x, en el casillero correspondiente

Masculino

Femenino

2.-El ingreso mensual de Ud. Oscila entre estos rangos:

\$100-\$300

\$301-\$600

\$601-\$900

\$901-\$1200

Más \$1200

3.- ¿Consume Ud. Frecuentemente la horchata?

Sí

No

4.- ¿Cuánto gasta mensualmente en la compra de este producto (horchatas)?

\$1.00 - \$ 4.00

\$4.01 - \$ 8.00

\$8.01 - en adelante

5.- ¿Conoce los atributos de este producto (horchata)?

SI

NO

5.- ¿Por qué razón, usted compraría el producto horchata?

Calidad

Precio

Presentación

## ANEXO 3. - TESTING PROCEDURE

October 11, 1990

### TESTING PROCEDURE (TP)

#### PH (LIQUID OR SLURRY SAMPLES)

ELECTRODES OR FOR ELECTRODE SOAKING BETWEEN USES.

1. 0.1M HCL: ADD 8.3 ML OF HCL (36%) TO WATER AND DILUTE TO 1 LITER WITH WATER. MIX AND LABEL CONTAINER "0.1 M HYDROCHLORIC ACID."
2. 0.1M NAOH: WEIGH 4.0 OF NAOH PELLETS INTO 1 LITER FLASK, ADD WATER TO DISSOLVE AND DILUTE TO VOLUME WITH WATER. MIX AND LABEL CONTAINER "0.1M SODIUM HYDROXIDE."
3. 0.1M KCL: WEIGH 7.45 G OF KCL INTO 1 LITER FLASK, ADD WATER TO DISSOLVE AND DILUTE TO VOLUME WITH WATER, MIX AND LABEL CONTAINER "0.1M POTASSIUM CHLORIDE."

#### SAMPLING

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REPRESENTATIVE SUBSAMPLES FROM LOTS OR BATCHES SHOULD BE TAKEN. WHERE LARGE PARTICLES OR NON-HOMOGENEOUS FOOD SAMPLES ARE TAKEN. BLEND USING A CUISINART OR OTHER APPROPRIATE BLENDER/HOMOGENIZER.

#### PROCEDURE

##### A. STANDARDIZATION OF PH METER/ELECTRODE SYSTEM.

NOTE: THE PH METER/ELECTRODE SYSTEM MUST BE STANDARDIZED BEFORE EACH SERIES OF MEASUREMENTS AND RESTANDARDIZED AFTER 10 PH DETERMINATIONS (THIS INSURES THAT THE METER/ELECTRODE SYSTEM IS NOT DRIFTING). STANDARDIZATION STEPS GIVEN IN THIS TP ARE TYPICAL FOR MOST PH METERS THAT USE TWO-BUFFER STANDARDIZATION. WHEN THIS PROCEDURE DIFFERS FROM THE MANUFACTURER'S INSTRUCTION, THE LATTER SHOULD PREVAIL. IT IS ASSUMED THAT ALL MEASUREMENTS ARE MADE AT ROOM TEMPERATURE OR THAT BOTH SAMPLE ANALYSIS AND STANDARDIZATIONS ARE MADE AT THE SAME TEMPERATURE. VARIATIONS IN TEMPERATURES WILL CAUSE ERRORS IN PH MEASUREMENTS.

1. WARM UP PH METER FOR 1/2 HOUR (MOST METERS ARE LEFT IN STANDBY OR READY MODE WHEN NOT IN USE).
2. SELECT TWO STANDARD BUFFER SOLUTIONS AND POUR ABOUT 25 ML OF EACH INTO SEPARATE 50 ML BEAKERS. SELECT BUFFER SOLUTIONS WHICH WILL BRACKET THE ANTICIPATED PH OF THE SAMPLE. I.E., FOR SAMPLE PH'S LESS THAN 7.00, SELECT PH 4.00 AND PH 7.00 BUFFERS. FOR SAMPLE PH'S GREATER THAN 7.00, SELECT PH 7.00 AND PH 10.0 BUFFERS. USE ONLY FRESH BUFFER SOLUTIONS FROM BOTTLES.
3. SET TEMPERATURE COMPENSATOR CONTROL ON THE INSTRUMENT TO THE

TESTING PROCEDURE (TP)

## PH (LIQUID OR SLURRY SAMPLES)

OBSERVED TEMPERATURE OF THE BUFFER SOLUTION (CA 25 DEG.C.).

4. PLACE THE ELECTRODE(S) IN THE PH 7.00 BUFFER. GENTLY STIR THE SOLUTION BY SWIRLING AND THEN TURN METER SWITCH TO READ PH. ALLOW METER READING TO STABILIZE (UP TO 30 SECONDS).
5. SET THE METER TO PH 7.00 WITH THE "STANDARDIZE" OR "CALIBRATE" CONTROL.
6. RETURN METER SWITCH TO STANDBY POSITION. RINSE THE ELECTRODE WITH DISTILLED WATER AND BLOT DRY WITH A TISSUE. DO NOT RUB ELECTRODE WITH TISSUE. PLACE ELECTRODE IN THE PH 4.00 OR 10.00 BUFFER AS INDICATED IN STEP 2. GENTLY STIR SOLUTION AND TURN METER SWITCH TO READ PH. ALLOW METER READING TO STABILIZE (30 SECONDS).
7. ADJUST METER READING TO THE SECOND PH VALUE (PH 4.00 OR PH 10.00) WITH THE "SLOPE" ADJUSTMENT. NOTE: DO NOT READJUST THE CALIBRATE CONTROL FOR THIS SECOND PH BUFFER. IF STABLE READINGS CANNOT BE OBTAINED WITHIN 1 MINUTE, OR IF CHANGES OF MORE THAN 0.15 PH UNITS WERE REQUIRED AT EITHER THE PH 4.00 OR 10.0 ADJUSTMENTS, CONSIDER REJUVINATION OF THE GLASS ELECTRODE. SEE REMARK 3 FOR CORRECTIVE STEPS.
8. PLACE METER IN STANDBY OR READY MODE. DISCARD BUFFER SOLUTIONS WHEN FINISHED WITH STANDARDIZATION.

## PH DETERMINATION

1. TRANSFER 50 TO 100 ML OF SAMPLE TO A BEAKER FOR PH DETERMINATION.
2. INSERT STANDARDIZED ELECTRODE IN SAMPLE SOLUTION AND TURN METER SWITCH TO PH SETTING. READ AND RECORD THE PH FROM THE METER AFTER READING HAS STABILIZED.
3. RETURN METER SWITCH TO "STAND-BY" SETTING AND REMOVE ELECTRODE FOR SAMPLE. RINSE OFF ELECTRODE USING DISTILLED WATER. BLOT EXCESS WATER OFF WITH TISSUE BEFORE INSERTING ELECTRODE INTO NEXT SAMPLE.
4. WHEN ELECTRODES ARE NOT IN USE, STORE GLASS PH ELECTRODES IN PH 4.00 BUFFER. STORE SEPARATE REFERENCE ELECTRODES IN THEIR OWN FILLIGN SOLUTION. COMBINATION ELECTRODES SHOULD BE STORED IN A MIXTURE OF 50% PH 4.00 BUFFER AND 50% 0.1 M KCL

TESTING PROCEDURE (TP)

**PH (LIQUID OR SLURRY SAMPLES)**

SOLUTION. CHOOSE ELECTRODE STORAGE VESSEL THAT ALLOWS MINIMUM EVAPORATION.

CALCULATION

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NONE

PRECISION

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REPLICATE PH MEASUREMENTS SHOULD AGREE WITHIN +/- 0.005 PH UNITS.

REFERENCE

- 
1. J. ASSOC. OF ANAL. CHEM., 64, 2, 332 (1981)
  2. AOAC. OFFICIAL METHODS OF ANALYSES, 14TH EDITION, 1984, SECTION 32.010.
  3. DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS, 6TH EDITION, 1984, VAN NOSTRAND REINHOLD CO.

REMARKS

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1. ALL ELECTROLYTIC MEASUREMENTS REQUIRE A PAIR OF ELECTRODES - ONE TO SENSE THE ION OF INTEREST AND ONE FOR A REFERENCE OR KNOWN POTENTIAL. IN PH DETERMINATIONS, THE PH (OR GLASS) ELECTRODE IS PAIRED WITH ONE OF SEVERAL KINDS OF REFERENCE ELECTRODES. THE THREE MOST COMMON REFERENCE TYPES USED ARE THE CALOMEL, THE AG/AGCL AND THE ROSS ELECTRODE. OF THESE, THE ROSS REFERENCE ELECTRODE IS USED ONLY WITH A ROSS TYPE PH ELECTRODE. WHEN THE PH AND REFERENCE ELECTRODES ARE PLACED TOGETHER IN A SINGLE COMBINATION TYPE ELECTRODE BODY, ONLY THE AG/AGCL AND ROSS TYPE REFERENCE ELEMENTS ARE USED. THE COMBINATION TYPE ELECTRODE PROVIDES EASIER ACCESS INTO SMALL SAMPLE CONTAINERS AND SOME CONVENIENCE IN GENERAL HANDLING, CLEANING, ETC. BREAKAGE OR OTHER INACTIVATION OF ONLY ONE ELEMENT OF THE PAIR HOWEVER, ELIMINATES USE OF EITHER ELEMENT AND NECESSITATES REPLACEMENT OF THE ENTIRE COMBINATION ELECTRODE.
  2. ROSS IS A TRADEMARK NAME FOR ELECTRODES MANUFACTURED ONLY BY ORION RESEARCH INC. AND WHICH FEATURE A PATENTED DOUBLE-JUNCTION REFERENCE ELECTRODE AND PLATINUM CONDUCTING WIRES IN BOTH ELEMENTS OF THE ELECTRODE PAIR. THESE FEATURES PROVIDE SEVERAL ADVANTAGES OVER CONVENTIONAL CALOMEL OR AG/AGCL REFERENCE ELECTRODES. ROSS ELECTRODES FEATURE EXCELLENCE IN

TESTING PROCEDURE (TP)

PH (LIQUID OR SLURRY SAMPLES)

RESPONSE TIME, ELECTRODE STABILITY, RESISTANCE TO DRIFT, RESISTANCE TO TEMPERATURE EFFECTS ON PH MEASUREMENT AND RESISTANCE TO LONG TERM ELECTRODE FAILURE. WHILE MORE EXPENSIVE THAN CONVENTIONAL ELECTRODES, THE ADVANTAGES MENTIONED GENERALLY OUTWEIGH THEIR ADDED COST. SINCE NO SILVER OR MERCURIC CHLORIDE IS USED IN ROSS ELECTRODES, THE MOST COMMON CAUSE OF ELECTRODE FAILURE (PRECIPITATION OF AGCL OR Hg<sub>2</sub>CL<sub>2</sub> IN THE POROUS JUNCTION WITH RESULTING CLOGGING) HAS BEEN ELIMINATED. THE LONG-TERM LIFE OF ROSS ELECTRODES IS EXCELLENT.

ELECTRODE SYSTEMS THAT ARE SLUGGISH, ELECTRICALLY NOISY IN RESPONSE OR WHICH CONTINUALLY DRIFT USUALLY SUFFER FROM ONE OF THREE PROBLEMS:

- A. THE ELECTRODE IS CONTAMINATED FROM PRIOR SAMPLES ANALYZED. THIS CAN OCCUR WITH EITHER THE GLASS OR REFERENCE ELECTRODE (OR THE ENTIRE COMBINATION ELECTRODE).
- B. THE GLASS MEMBRANE ON THE PH ELECTRODE HAS CHANGED DUE TO SURFACE LEACHING. LEACHING OCCURS FROM BOTH NORMAL ELECTRODE AGING AND EXCESSIVE IMMERSION IN ALKALINE SOLUTIONS.
- C. THE REFERENCE ELECTRODE IS NOT PROVIDING A CONSTANT BACKGROUND POTENTIAL. WITH CONVENTIONAL ELECTRODES THIS IS USUALLY CAUSED BY A PARTIALLY PLUGGED POROUS FRIT OR JUNCTION.

CORRECTIONS OF THESE PROBLEMS CAN OFTEN BE MADE AS FOLLOWS:

- A. REMOVE GENERAL CONTAMINATION
  - 1) FOR PROTEIN OR INORGANIC DEPOSITS, WASH ELECTRODES IN 0.1 M HCL.
  - 2) FOR FAT OR GREASE DEPOSITS, WASH ELECTRODES WITH ACETONE OR ETHYL ETHER.

AFTER TREATMENT BY EITHER REAGENT, RINSE THE ELECTRODE THOROUGHLY IN DISTILLED WATER.

- B. RECONDITIONING A DAMAGED (LEACHED) GLASS PH ELECTRODE.



TESTING PROCEDURE (TP)

## PH (LIQUID OR SLURRY SAMPLES)

IMMERSE ELECTRODE TIP INTO 0.1 M HCL FOR ABOUT 1 MINUTE. RINSE WITH DISTILLED WATER THEN IMMERSE IN 0.1 M NAOH (0.1M KOH WILL WORK AS WELL) FOR ABOUT 1 MINUTE. CYCLE THE ELECTRODE THROUGH THESE SOLUTIONS SEVERAL TIMES ENDING WITH ELECTRODE IN ACID SOLUTION. AFTER THE FINAL DISTILLED WATER RINSE, SOAK ELECTRODE IN PH 7 BUFFER FOR 2 HOURS. RETEST FOR STABILITY AND ABILITY TO MEET SPAN REQUIREMENT (PROCEDURE STEP A-7). REPLACE ELECTRODE IF NECESSARY.

## C. UNBLOCK THE POROUS JUNCTION ON THE REFERENCE ELECTRODE.

## 1) CALOMEL REFERENCE ELECTRODES

DRAIN THE KCL SOLUTION FROM THE ELECTRODE CAVITY AND REPLACE WITH FRESH KCL SOLUTION. IMMERSE ELECTRODE IN WARM DISTILLED WATER AND PERIODICALLY APPLY AIR PRESSURE TO FILL HOLE TO RE-ESTABLISH ELECTROLYTE FLOW.

## 2) SILVER/SILVER CHLORIDE REFERENCE ELECTRODES

RINSE THE ELECTRODE CAVITY WITH DISTILLED WATER UNTIL ANY CRYSTALLIZATION OF ELECTROLYTE HAS BEEN DISSOLVED. DISCARD ALL RINSE WATER. REFILL CAVITY WITH FRESH 4 M KCL SATURATED WITH AGCL FILL SOLUTION AND APPLY AIR PRESSURE TO FILL HOLE TO ESTABLISH ELECTROLYTE FLOW.

IF ELECTRODE PERFORMANCE IS STILL UNSATISFACTORY, TRY THE FOLLOWING PROCEDURES IN THE ORDER LISTED AS REQUIRED:

- A) SOAK ELECTRODE OVERNIGHT IN 0.1 M KCL SOLUTION (NOTE: THIS SOLUTION IS MORE DILUTED THAN FILLING SOLUTION).
- B) BOIL THE JUNCTION IN DILUTE KCL SOLUTION FOR 5-10 MINUTES.
- C) CAREFULLY FILE OR SAND THE POROUS JUNCTION.
- D) DISCARD ELECTRODE

## CHEMICAL SAFETY INFORMATION

TESTING PROCEDURE (TP)

PH (LIQUID OR SLURRY SAMPLES)

- A. ETHYL ALCOHOL CAS 64-17-5 95% REF #3 PAGES 316-17

FLAMMABLE LIQUID, AVOID OPEN FLAMES, SPARKS OR HIGH HEAT SOURCES, USE IN HOOD TO AVOID VAPOR FUME BUILD UP.

NOTE: ETHANOL MAY BE DENATURED WITH METHANOL AND ISOPROPYL ALCOHOLS. DO NOT INGEST AS METHANOL AND ISOPROPYL ALCOHOL ARE TOXIC.

- B. HYDROCHLORIC ACID CAS 7657-01-0 REF #3 PAGE 1545

CORROSIVE LIQUID. AVOID SKIN CONTACT OR BREATHING VAPORS. USE IN A HOOD. USE PROTECTIVE EQUIPMENT TO PROTECT SKIN AND EYES SUCH AS GLOVES AND PROTECTIVE GOGGLES OR FACE SHIELDS AS WELL AS APRONS. WHEN DILUTING ADD ACID TO WATER NOT THE REVERSE. DO NOT MIX WITH ORGANIC COMPOUNDS. READ REFERENCE FOR POTENTIAL REACTIONS.

- C. SODIUM HYDROXIDE CAS 1310-73-2 REF #3 P. 2434, 2435

CORROSIVE MATERIAL. AVOID CONTACT WITH ANY BODY TISSUE. WEAR PROTECTIVE EQUIPMENT SUCH AS GLOVES, EYE PROTECTION AND APRONS TO PREVENT SKIN OR EYE CONTACT. WASH ANY EXPOSED AREAS WITH WATER. USE GOOD LABORATORY PRACTICES IN HANDLING THIS CHEMICAL.

- D. POTASSIUM CHLORIDE CAS 7447-40-7

SALT: NO PARTICULAR PROBLEM OR TOXICITY IN WORKING WITH THIS MATERIAL. DO NOT INGEST. USE GOOD LABORATORY PRACTICES.

ALTERNATE T.P.'S

CODE      DESCRIPTION

NONE

29.002/C/APPROVED  
October 11, 1990

LAST ISSUE CHANGE LOG  
TESTING PROCEDURE (TP)

PH (LIQUID OR SLURRY SAMPLES)

CHANGE LOG FROM LAST ISSUE:

CONVERSION TO THE NEW DOCUMENTATION SYSTEM.

CHANGE FROM LAST ISSUE

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ITEMS CHANGED: TOTAL

REASON FOR CHANGE: TOTAL REVISION TO INCLUDE ELECTRODE CARE  
AND CLEANING, STANDARDIZATION AND  
CHEMICAL SAFETY INFORMATION.

INITIATED BY: J. MASON

END OF DOCUMENT

## ANEXO 4: NORMAS USADAS

NTE INEN 1529. 8:90 y NTE INEN 1529. 6:90

ANEXO: REQUISITOS USADOS DE LA NORMA BOLIVIANA

### NORMA BOLIVIANA NB 383 BEBIDAS ANALCOHOLICAS-REQUISITOS

#### Requisitos físico-químicos

Parámetro	Mínimo.	Máximo.
°BRIX	6,5	--
% acidez titulable como ácido cítrico	--	0,5

#### Requisitos Microbiológicos

Parámetros.	Resumen Total.
Bacterias patógenas u organismos indicadores como E. coli	Libre de UFC
Mohos y Levaduras	12 muestras $\leq$ 5 UFC/100ml
	1 muestra $\leq$ 20 UFC/100ml
Bacterias	12 muestras $\leq$ 10 UFC/100ml
	1 muestra $\leq$ 50 UFC/100ml

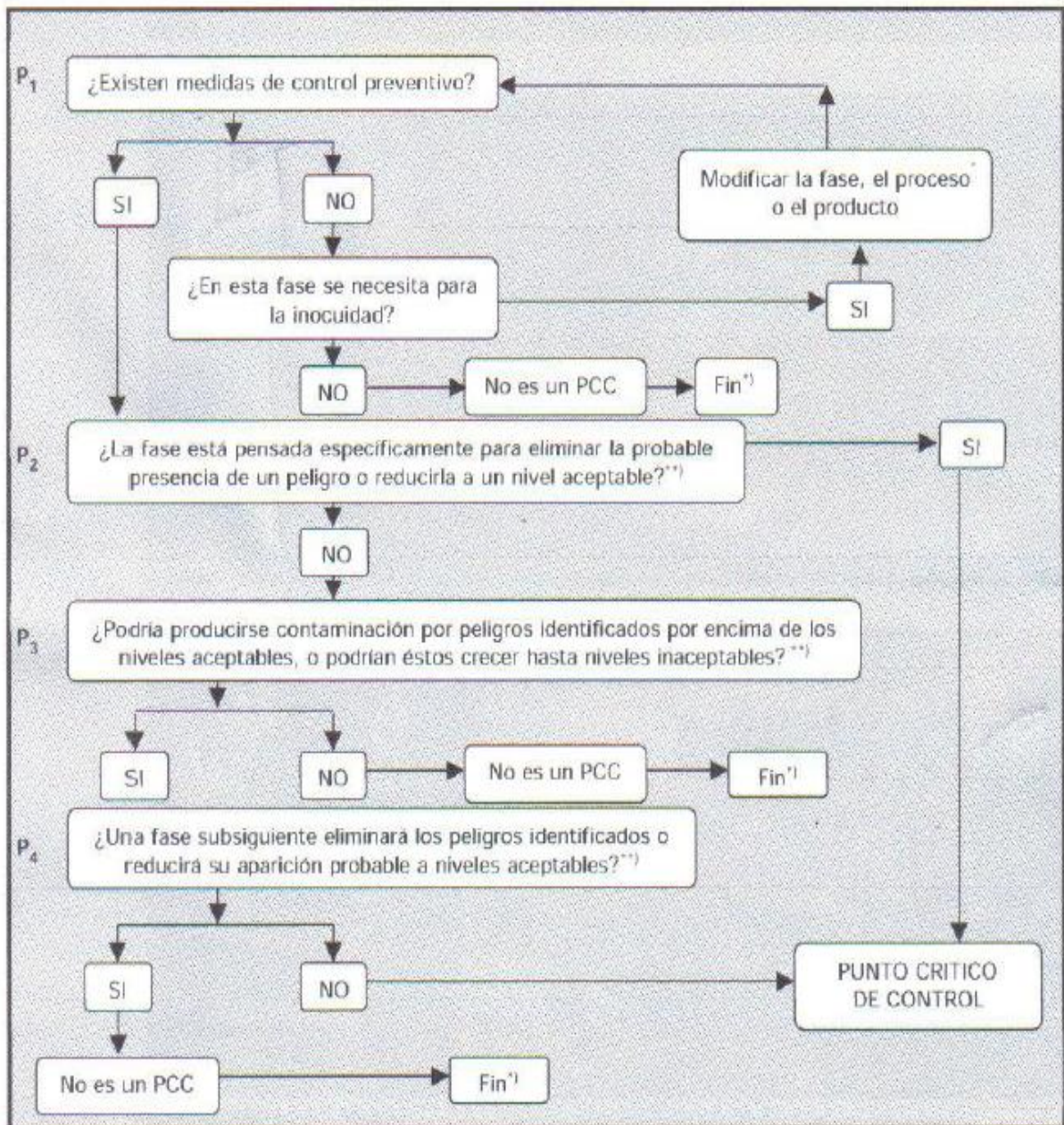
**ANEXO 5: RESULTADOS DE PANELISTAS EN EVALUACIÓN  
SENSORIAL**

<b>Entrevistado</b>	<b>Calificación Bebida 487</b>	<b>Calificación Bebida 349</b>
1	1	9
2	1	9
3	3	4
4	4	7
5	5	7
6	8	7
7	3	5
8	7	6
9	7	8
10	4	7
11	1	9
12	8	6
13	8	10
14	4	6
15	9	10
16	10	4
17	4	10
18	2	5
19	6	4
20	2	10
21	4	10
22	5	2
23	10	4
24	9	8
25	7	9
26	4	10
27	5	6
28	6	10
29	9	9
30	1	3

PANELISTA	MUESTRAS	
	487	349
1	X	
2		X
3		X
4	X	
5		X
6		X
7		X
8		X
9		X
10		X
11	X	
12	X	
13		X
14		X
15		X
16		X
17		X
18		X
19	X	
20		X
21		X
22		X
23		X
24		X
25	X	
26		X
27		X
28		X
29	X	
30	X	
TOTAL	8	22

## ANEXO 6: ÁRBOL DE DECISIÓN IDENTIFICACIÓN DE PUNTOS CRÍTICOS DE CONTROL

(Responder a las preguntas en la secuencia indicada)



\*) Pasar al próximo peligro identificado en el proceso descrito.

\*\*) Los niveles aceptables e inaceptables se deberán determinar en el ámbito de los objetivos generales al identificar los PCC del plan HACCP.

## ANEXO 7: CRITERIOS APLICADOS EN LA DETERMINACIÓN DEL EFECTO DEL PELIGRO

Tabla B.1 - Criterios aplicados para la determinación del efecto del peligro

Valor	Alcance	Criterio
Menor	SEGURIDAD	Sin lesión o enfermedad
Moderado	SEGURIDAD	Lesión o enfermedad leve
Serio	SEGURIDAD	Lesión o enfermedad, sin incapacidad permanente
Muy Serio	SEGURIDAD	Incapacidad permanente o pérdida de vida o de una parte del cuerpo. Falta de cumplimiento a la legislación, los compromisos asumidos voluntariamente por la empresa o políticas corporativas

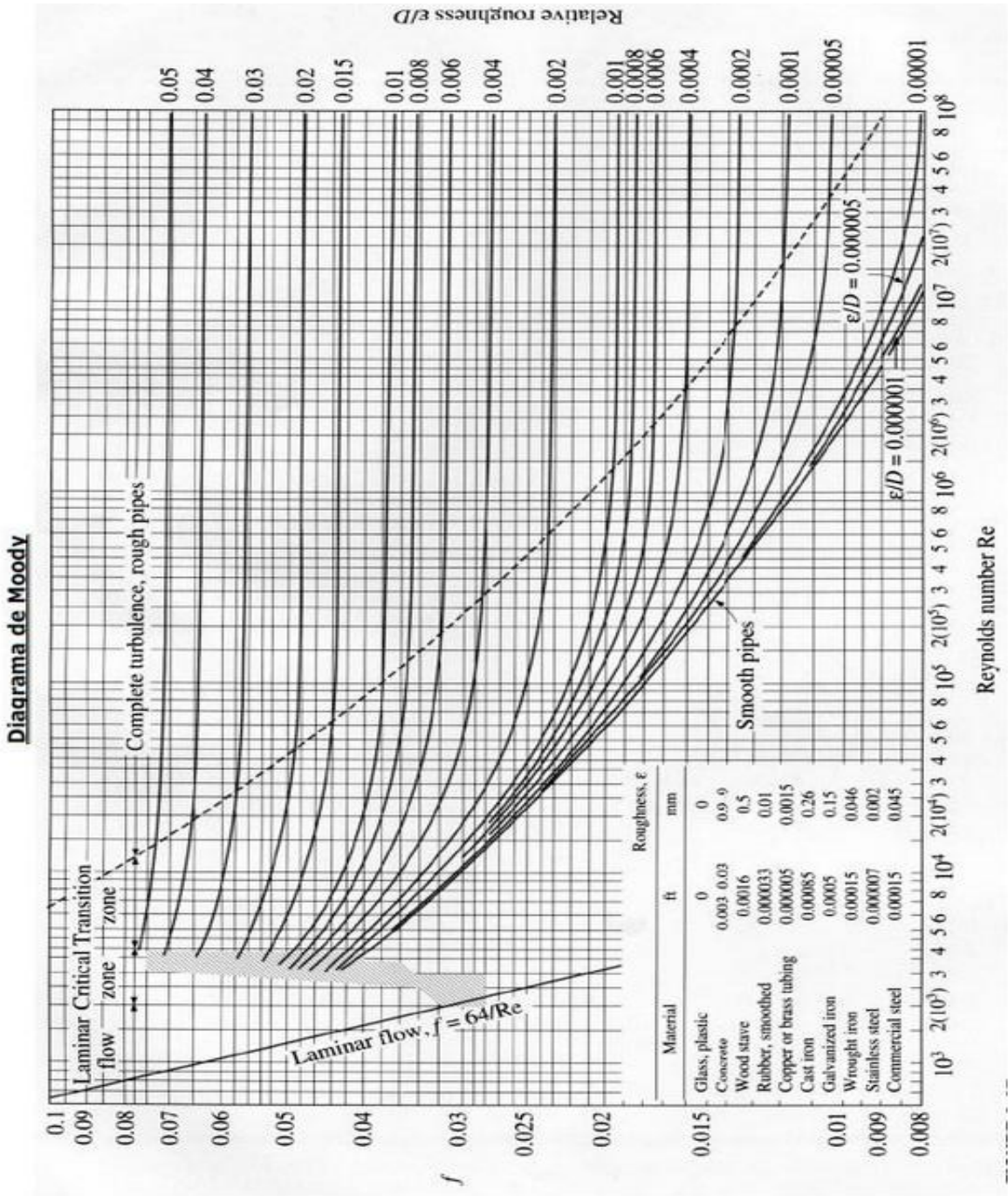
Valor	Probabilidad	Significado
4	Frecuente	Más de 2 veces al Año
3	Probable	No más de 1 a 2 veces cada 2 ó 3 años
2	Ocasional	No más de 1 a 2 veces cada 5 años
1	Remota	Muy poco probable, pero puede ocurrir alguna vez

¿Es peligro significativo?		Probabilidad			
		4	3	2	1
		Frecuente	Probable	Ocasional	Remota
EFFECTO	Muy serio	SI	SI	SI	SI
	Serio	SI	SI	NO	NO
	Moderado	NO	NO	NO	NO
	Menor	NO	NO	NO	NO

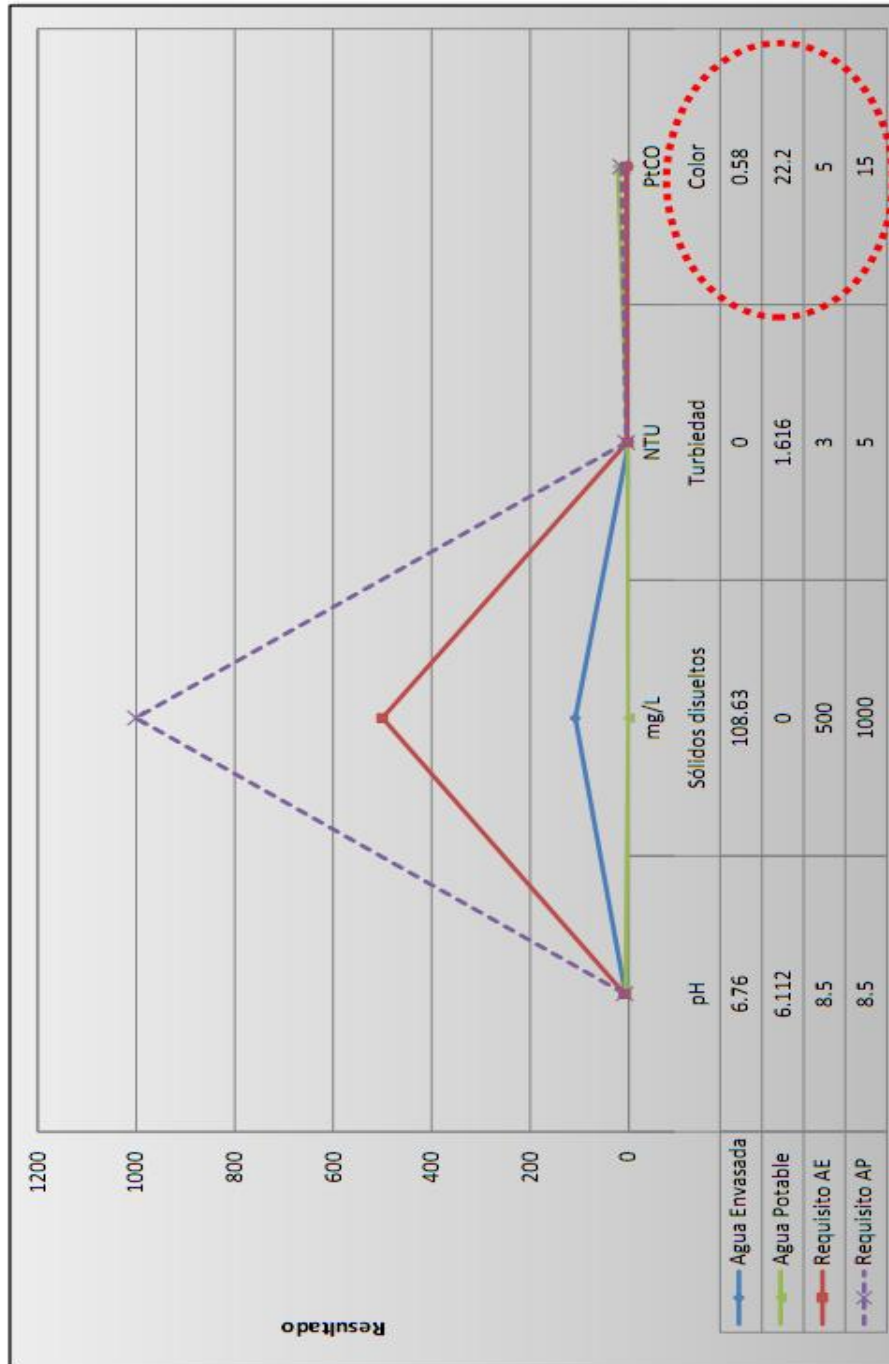
NOTA - Para los casos de respuestas "SI" se deben establecer medidas de control y posteriormente analizar en el árbol de decisiones.



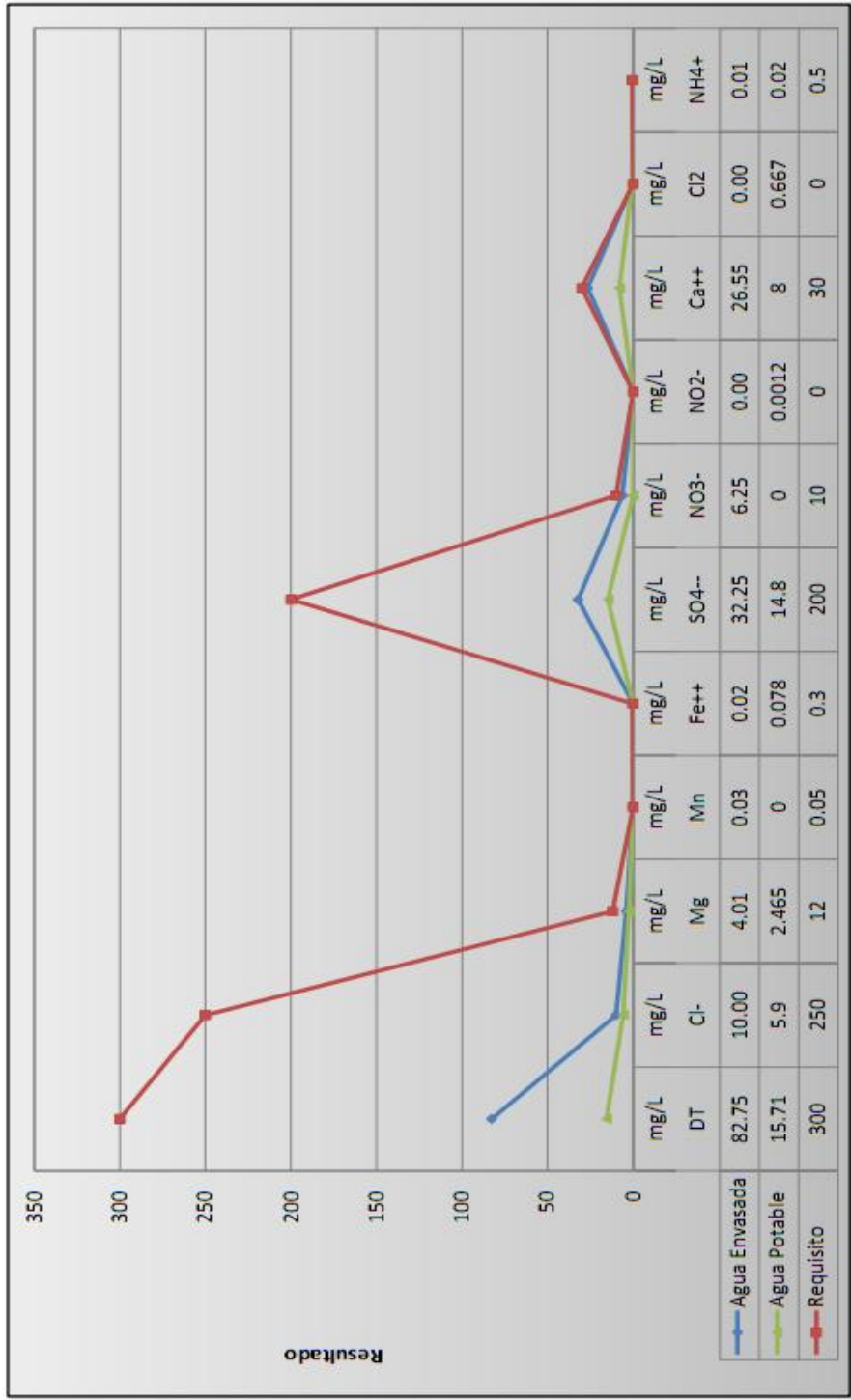
# ANEXO 8: DIAGRAMA DE MOODY



## ANEXO 9: ANÁLISIS DE AGUA EN LOJA



**Parámetros físicos (2009)**

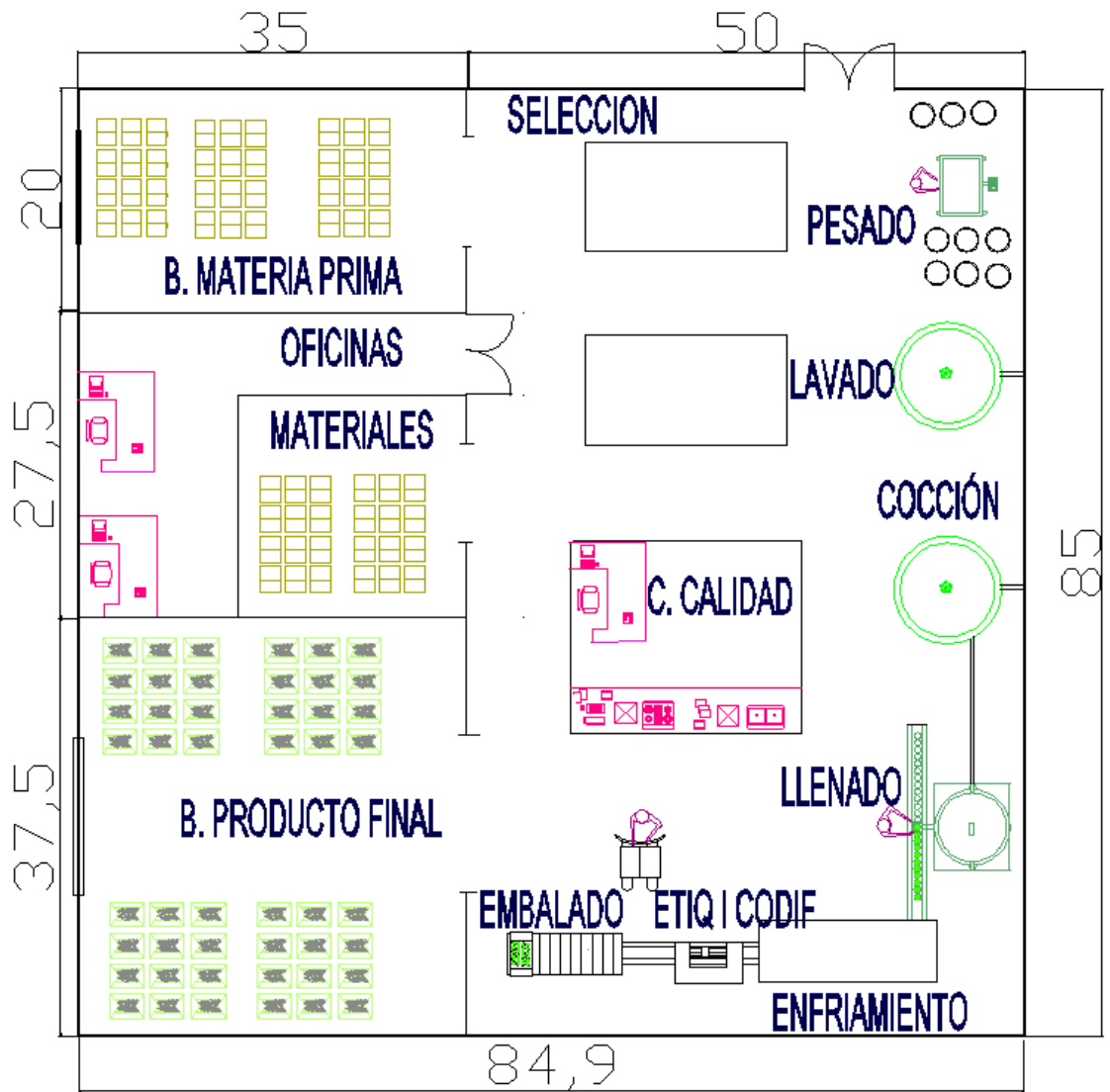


Parámetros químicos (2009)

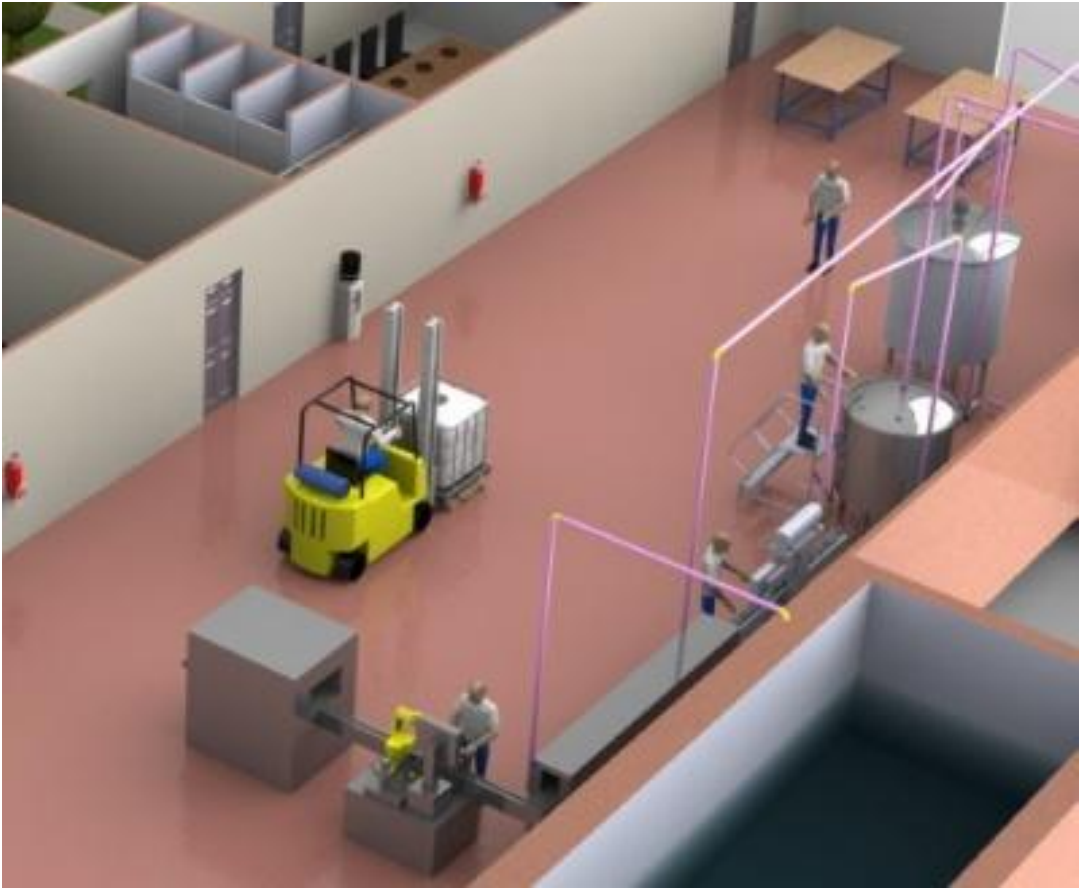


Parámetros microbiológicos (2009)

# ANEXO 10: DISTRIBUCIÓN







## ANEXO 11: FLUJO DE CAJA

	AÑO 1	AÑO 2	AÑO 3	AÑO 4	AÑO 5
<b>1. Saldo Inicial</b>					
<b>2. Ventas</b>					
<b>CONTADO</b>	172800	177984	183323,52	188823,2256	194487,9224
<b>Total Ventas del Año</b>	172800	177984	183323,52	188823,2256	194487,9224
<b>Flujo Total de Efectivo</b>	172800	177984	183323,52	188823,2256	194487,9224
<b>EGRESOS</b>					
<b>1. Costos Fijos</b>	<b>70256</b>	<b>68256</b>	<b>68256</b>	<b>68256</b>	<b>68256</b>
<b>1.1 Honorarios fijos de oficina</b>	<b>38398</b>	<b>38398</b>	<b>38398</b>	<b>38398</b>	<b>38398</b>
jefe administrativo y financiero	7800	7800	7800	7800	7800
Jefe de Marketing y Ventas	0	0	0	0	0
jefe producción y calidad	7200	7200	7200	7200	7200
<b>Operarios</b>	14016	14016	14016	14016	14016
<b>Guardias</b>	3504	3504	3504	3504	3504
<b>chofer</b>	0	0	0	0	0
<b>beneficios sociales</b>	5878	5878	5878	5878	5878
<b>1.2 Gastos Administrativos</b>	<b>28112</b>	<b>26112</b>	<b>26112</b>	<b>26112</b>	<b>26112</b>
<b>Teléfono</b>	360	360	360	360	360
<b>gastos de publicidad</b>	2400	2400	2400	2400	2400
<b>Electricidad</b>	1560	1560	1560	1560	1560
<b>material de limpieza</b>	960	960	960	960	960
<b>Papelería Y oficina</b>	600	600	600	600	600
<b>gastos varios</b>	2400	2400	2400	2400	2400
<b>Servicios de instalacion</b>	2000				
<b>alquiler</b>	9600	9600	9600	9600	9600
<b>cuota inversion</b>	6072	6072	6072	6072	6072
<b>alimentacion</b>	2160	2160	2160	2160	2160
<b>1.3 Depreciación</b>	<b>3746</b>	<b>3746</b>	<b>3746</b>	<b>3746</b>	<b>3746</b>
<b>2. Costos Variables</b>					
<b>2.2 Costo variale de Producción</b>					
<b>Materia prima</b>	40908,24	42135,4872	43399,55182	44701,53837	46042,58452
<b>Agua</b>	1080	1112,4	1145,772	1180,14516	1215,549515
<b>Material empaque</b>	50112	51615,36	51615,36	51615,36	53163,8208



<b>TOTAL COSTOS VARIABLES</b>	92100,24	94863,2472	96160,68382	97497,04353	100421,9548
<b>TOTAL EGRESOS</b>	162356,24	163119,2472	164416,6838	165753,0435	168677,9548
<b>ingresos -egresos</b>	10443,76	14864,7528	18906,83618	23070,18207	25809,96753
<b>flujo de caja</b>	10443,76	25308,5128	44215,34898	67285,53105	93095,49859
<b>-55377,27</b>	-44933,51	-19624,9972	24590,35178	91875,88284	184971,3814

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