

Appendix

Media composition:

1. MRS media:

Ingredients	g/L
Proteose peptone	10
Beef extract	10
Yeast extract	5
Dextrose	20
Polysorbate 80	1
Ammonium citrate	2
Sodium acetate	5
Magnesium sulphate	0.1
Manganese sulphate	0.05
Dipotassium phosphate	2
Agar	12
Final pH (at 25°C)	6.5±0.2

2. Luria bertani broth

Ingredients	g/L
Casein enzymic hydrolysate	10
Yeast extract	5
Sodium chloride	10
Final pH (at 25°C)	7.5±0.2

3. Listeria Oxford Medium Base

Ingredients	g/L
Peptone, special	23
Lithium chloride	15
Sodium chloride	5
Corn starch	1
Esculin	1
Ammonium ferric citrate	0.5
Agar 10.000	
Final pH	(at 25°C) 7.0±0.2

4. Nutrient agar

Ingredients	g/L
Peptic digest of animal tissue	5
Sodium chloride	5
Beef extract	1.5
Yeast extract	1.5
Agar	15
Oxford Listeria supplement	1 vial

5. PBS buffer (1X)

Concentration (mg/ml)

Ingredients	g/L
Sodium chloride	8
Potassium choride	0.2
Disodium hydrogen phosphate	1.44
Potassium dihydrogern phosphate	0.24
pH	7.4

6. Minimal essential medium (MEM):

Ingredients	mg/L
INORGANIC SALTS	
Calcium chloride dihydrate	265
Magnesium sulphate anhydrous	97.72
Potassium chloride	400
Sodium bicarbonate	2200
Sodium chloride	6800
Sodium dihydrogen phosphate anhydrous	122
AMINO ACIDS	
L-Arginine hydrochloride	126
L-Cystine dihydrochloride	31.3
L-Histidine hydrochloride monohydrate	42
L-Isoleucine	52
L-Leucine	52
L-Lysine hydrochloride	72.5
L-Methionine	15
L-Phenylalanine	32
L-Threonine	48
L-Tryptophan	10
L-Tyrosine disodium salt	51.9

L-Valine		46
	VITAMINS	
Choline chloride		1
D-Ca-Pantothenate		1
Folic acid		1
Nicotinamide		1
Pyridoxal hydrochloride		1
Riboflavin		0.1
Thiamine hydrochloride		1
i-Inositol		2
OTHERS		
D-Glucose		1000
Phenol red sodium salt		11
L-glutamine (added seperately)		73.07
pH		7.00 -7.60

100 U/ml penicillin and 100 g/ml streptomycin are added separately

7. Primers

used

Name	Sequence (5'-3')	Specificity
27 F	AGAGTTTGATCCTGGCTCAG	16s rDNA
1492R	GGTACCTTGTTACGACTT	16s rDNA
ITS1	TCCGTAGGTGAACCTGCGG	ITS1-5.8S rDNA intergenic region
ITS4	TCCTCCGCTTATTGATATGC GCATATCAATAAGCGGAGGAAAA	ITS1-5.8S rDNA intergenic region
NL1	G	D1/D2 region of 26S rDNA
NL4	GGTCCGTGTTTC AAGACGG	D1/D2 region of 26S rDNA
PFP	TGGCCAATATCATTGGTGGT	Pediocin gene
PRP	CTACTAACGCTTGGCTGGCA	Pediocin gene

8. Sequences submitted to Genbank

>KJ867173.1 *Lactobacillus paracasei* strain D6 16S ribosomal RNA gene, partial sequence
 GTATTAGCTAGTTGGTGAGGTAATGGCTCACCAAGGCGATGATACGTAGCCGAACCTGAGAGG
 TTGATCGGCCACATTGGGACTGAGACACGGCCAACTCCTACGGGAGGCAGCAGTAGGGAA
 TCTTCCACAATGGACGCAAGTCTGATGGAGCAACGCCGCGTGAGTGAAGAAGGCTTTCGGGT
 CGTAAACTCTGTTGTTGGAGAAGAATGGTCGGCAGAGTAACTGTTGTCGGCGTGACGGTATC
 CAACCAGAAAGCCACGGCTAACTACGTGCCAGCAGCCGCGGTAATACGTAGGTGGCAAGCGT
 ATCCGGATTTATTGGGCGTAAAGCGAGCGCAGGCGGTTTTTAAGTCTGATGTGAAAGCCCTCG
 GCTTAACCGAGGAAGCGCATCGGAAACTGGGAACTTGAGTGCAGAAGAGGACAGTGGAAC
 CCATGTGTAGCGGTGAAATGCGTAGATATATGGAAGAACACCAGTGGCGAAAGC

GGCTGTCTGGTCTGTAACCTGACGCTGAGGCTCGAAAGCATGGGTAGCGAACAGGATTAGATA
CCCTGGTAGTCCATGCCGTAAACGATGATGCTAGGTGTTGGAGGGTTTCCGCCCTTCAGTGCC
GCAGCTAACGCATTAAGCATTCGCCTGGGGAGTACGACCGCAAGTGAAACTCAAAGGAATTG
ACGGGGGGCCCGCACAAAGCGGTGGAGCATGTGGTTTAATTCTGAAGCAACGCGAAGAACCTTAC
CAGGTCTTGACATCTTTTGATCACCTGAGAGATCAGGTTTCCCCTTCGGGGGCAAATGACAG
GTGGTGCATGGTTGTCGTCAGCTCGTGTGAGATGTTGGGTTAAGTCCCGCAACGAGCGCA
ACCTTATGACTAGTTGCCAGCATTTAGTTGGGCACTCTAGTAAGACTGCCGGTGACAAACCG
GAGGAAGGTGGGGATGACGTCAAATCATCATGCCCTTATGACCTGGGCTAC

>KP723364.1 *Pediococcus pentosaceus* strain DS1 16S ribosomal RNA gene, partial sequence

GAACCTCCGTTAATTGATTATGACGACTTGTACTGATTGAGATTTTAACACGAAGTGAGTGG
CGAACGGGTGAGTAACACGTGGGTAACCTGCCCAGAAGTAGGGGATAACACCTGGAAACAGA
TGCTAATACCGTATAACAGAGAAAACCGCATGGTTTTCTTTAAAAGATGGCTCTGCTATCAC
TTCTGGATGGACCCGCGGCGTATTAGCTAGTTGGTGAGGTAAGGCTCACCAAGGCAGTGATA
CGTAGCCGACCTGAGAGGGTAATCGGCCACATTGGGACTGAGACACGGCCCAGACTCCTACG
GGAGGCAGCAGTAGGGAATCTTCCACAATGGACGCAAGTCTGATGGAGCAACGCCGCGTGAG
TGAAGAAGGGTTTTCGGCTCGTAAAGCTCTGTTGTTAAAGAAGAACGTGGGTAAGAGTAACTG
TTTACCAGTGACGGTATTTAACCAGAAAGCCACGGCTAACTACGTGCCAGCAGCCGCGGTAA
TACGTAGGTGGCAAGCGTTATCCGGATTTATTGGGCGTAAAGCGAGCGCAGGCGGTCTTTTAA
GTCTAATGTGAAAGCCTTCGGCTCAACCGAAGAAGTGCATTGGAAACTGGGAGACTTGAGTG
CAGAAGAGGACAGTGGAACCTCCATGTGTAGCGGTGAAATGCGTAGATATATGGAAGAACC
AGTGGCGAAGGCGGCTGTCTGGACTGCACT

>KT345707.1 *Pediococcus pentosaceus* strain DS1 pediocin gene, partial cds

TGGCCAATATCATTGGTGGTAAATACTACGGTAATGGGGTACTTGTGGCAAACATTCCTGCT
CTGTTGACTGGGGTAAGGCTACCACTTGCATAATCAATAATGGAGCTATGGCATGGGCTACTG
GTGGACATCAAGGTAATCATAAATGCTAGCATTATGCTGAGCTGGCATCAATAAAGGGGTGA
TTTTATGAATAAGACTAAGTCGGAACATATTAACAACGAGCTTTGGACTTATTTACTAGGCT
ACAGTTTTTACTACAGAAGCACGATACTATCGAACCTTACCAGTACGTTTTAGATATTCTGGA
GACTGGTATCAGTAAAATAAACATAACCAGCAAACGCCTGAACGACAAGCTCGTGTAGTCT
ACAACAAGATTGCCAGCCAAGCGTTAGTAG

>KF414969.1 *Saccharomyces cerevisiae* strain ARDMC1 internal transcribed spacer 1, partial sequence; 5.8S ribosomal RNA gene, complete sequence; and internal transcribed spacer 2, partial sequence

TGCAGTTTCTAGTTCGGAGGATTTTCGAAACGGATTTTTTTTTGTTTTGGCAAGAGCATGAGAGTT
TTACTGGGCAAGAAGACAAAAAATGGAGAGTCCAGCCGGGCTGCGCTTAAGTGCAGCGGTCT
TGCTAGGCTTGTAAGTTTCTTTCTTGCTATTCCAAACGGTGAGAGATTTCTGTGCTTTTGTTATA
GGACAATTAACCGTTTCAATACAACACACTGTGGAGTTTTTCATATCTTTGCAACTTTTTCTT
TGGGCATTTCGAGCAATCGGGGCCAGAGGTAACAAACACAAACAATTTTATTTATTCATTA
TTTTTGCAAAAAACAAGAATTTTCGTAACCTGGAAATTTTAAAATATTAAAAACTTTCAACAA
CGGATCTCTTGGTTCTCGCATCGATGAAGAACGCAGCGAAATGCGATACGTAATGTGGATTGC
AGAATTCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCTTGGTATTCCAGGGGGCAT
GCCTGTTTGAGCGTCATTTCTTCTCAAACATTCTGTTTGGTAGTGAGTGATACTCTTTGGAGT
TAACTTGAATTTGCTGGCCTTTTCATTGGATGTTTTTTTTTTTCCAAAGAGAGGTTTCTCTGCGTG
CTTGAGGTATAATGCAAGTACGGTCGTTTTAGGTTTTACCAACTGCGGCTAATCTTTTTTATAC

TGAGCGTATTGGAACGTTATCGATAAGAAGAGAGCGTCTAGGCGAACAATGTTCCCTAAAGCT
GACCCCAATCCCCTTCTGGGGGGCGCCCCTCTTGGGA

>KP233782.1 *Saccharomyces cerevisiae* strain ARDMC1 26S ribosomal RNA gene, partial sequence

TAGTAACGGCGAGTGAAGCGGCAAAAGCTCAAATTTAGAAATCTGGTACCTTCGGTGCCCGA
GTTGTAATTTGGAGAGGGCAACTTTGGGGCCGTTTCCTTGTCTATGTTCCCTTGAACAGGACGT
CATAGAGGGTGAGAATCCCGTGTGGCGAGGAGTGC GGTTCTTTGTAAAGTGCCTTCGAAGAGT
CGAGTTGTTTGGGAATGCAGCTCTAAGTGGGTGGTAAATTCATCTAAAGCTAAATATTGGCG
AGAGACCGATAGCGAACAAGTACAGTGATGGAAAGATGAAAAGA ACTTTGAAAAGAGAGTG
AAAAAGTACGTGAAATTGTTGAAAGGGAAGGGCATTGATCAGACATGGTGT TTTGTGCCCTC
TGCTCCTTGTGGGTAGGGGAATCTCGCATTTCACTGGGCCAGCATCAGTTTGGTGGCAGGAT
AAATCCATAGGAATGTAGCTTGCCTCGGTAAGTATGTATAGCCTGTGGGAATACTGCCAGCTG
GGACTGAGGACCCT

>KT387283.1 *Candida tropicalis* strain BSS7 26S ribosomal RNA gene, partial sequence

TGAAGAAGGTATCTTTGGGTCTGGCTCTTGTCTATGTCTTCTTGGAACAGAACGTCACAGAGG
GTGAGAATCCCGTGCATGAGATGATCCAGGCCTATGTAAAGTTCCTTCGAAGAGTCGAGTTG
TTTGGGAATGCAGCTCTAAGTGGGTGGTAAATTCATCTAAAGCTAAATATTGGCGAGAGACC
GATAGCGAACAAGTACAGTGATGGAAAGATGAAAAGA ACTTTGAAAAGAGAGTGAAAAAGT
ACGTGAAATTGTTGAAAGGGAAGGGCTTGAGATCAGACTTGGTATTTTGTATGTTACTTCTTC
GGGGGTGGCCTCTACAGTTTATCGGGCCAGCATCAGTTTGGGCGGTAGGAGAATTGCGTTGGA
ATGTGGCACGGCTTCGGTTGTGTG

>KT387284.1 *Candida tropicalis* strain BSS7 internal transcribed spacer 1, partial sequence; 5.8S ribosomal RNA gene, complete sequence; and internal transcribed spacer 2, partial sequence

TGTTTTTTATTGAACAAATTTCTTTGGTGGCGGGAGCAATCCTACCGCCAGAGGTTATAACTAA
ACCAAAC TTTTTATTACAGTCAAAC TTGATTTATTATTACAATAGTCAAAACTTTCAACAACG
GATCTCTTGGTTCTCGCATCGATGAAGAACGCAGCGAAATGCGATACGTAATATGAATTGCAG
ATATTCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCTTTGGTATTCCAAAGGGATGCCT
GTTTGAGCGTCATTTCTCCCTCAAACCCCGGGTTTGGTGTGAGCAATACGCTAGGTTTGT TTT
GAAAGAATTTAACGTGGAAACTTATTTTAAGCGACTTAGGTTTATCCAAAACGCTTATTTTGCT
AGTGGCCACCACAATTTATTTTCATAACTTTGACCTCA

Topmost tender portions of bamboo shoots are cut longitudinally and flattened by crushing



Put into bamboo baskets lined with leaves



Baskets put into pits, sealed and weighed down with heavy stones



Fermented for 2-3 months



Herring



Black mustard seeds are ground



Mixed with *Kolakhar*, a water extract of burnt banana peel or rhizome



Wrapped with banana peel and kept over fireplace for 5-7 days



Kharoli



Soybean seeds are boiled and spread on bamboo mats



After water drained off, kept in bamboo containers covered with banana leaves



Kept in fireplace with proper rotation



After fermentation is over, seeds are crushed and sun-dried in the form of small balls



Libi churpi



Young bamboo shoot



Outer leaves peeled off



Washed with water and chopped into smaller pieces



Pressed in bamboo tubes making them air-tight



Fermented for 7-12 days



Mesu



Tender shoots cut into small pieces



Kept for fermentation in bamboo tubes submerged in water for 7-14 days



Henoop



Tender bamboo shoots grinded and dried



Pressed under stone



Eup



Fig. S1. Schematic diagram of the traditional method of preparation of some selected fermented food of Assam and Arunachal Pradesh