## CANNING OF MRIGALA (INDIAN MAJOR CARP) FILLETS

**Aim:** To study canning of mrigala fillets in oil / brine / tomato sauce / curry as filling medium. **Introduction:** Mrigala is one of the most important Indian major carp being cultured in the fresh water ponds, all over the country and is said to be a good source of raw material for canning purpose. However, the fish cannot be canned either in whole form (due to enormous size) or in steaks form (due to hard bones). Further, since the processing temperature makes the skin unattractive and unacceptable for the human palate, the fish are canned as skinless fillets only.

Product Code	:	MR3-Mrigala in oil
		MRL-Mrigala in brine
		MR7-Mrigala in curry
		MRT-Mrigala in tomato sauce.
Cans used	:	a) 8-Oz. cans, S-R lacquered
		b) Quarter Dingley cans, S-R lacquered.
Std. Net Weight	:	a) 210 grams for 8-Oz. cans
		b) 106 gram for Quarter Dingley cans.
Std. Solid Weight	:	70% of net weight.

## Materials & Equipments:

Fresh mrigala, refined oil, tomato sauce, curry, common salt, knives, trays and other canning equipments.

## **Procedure:**

Raw material	:	whole, fresh mrigala.
Washing	:	
Weighing ↓	:	

Dressing ↓	:	Removal of scales, head, fins, visceral organs etc.
Washing	:	
Weighing	:	
↓ Brining	:	By immersing in saturated salt solution for 10-12 min.
Washing ↓	:	By giving a quick dip in fresh water.
Size Cutting	:	Cut the dressed fish into pieces of 6cms, for 8-Oz. can and 10cms for Quarter Dingley can.
Washing ↓	:	
Cooking and Peeling:		Dip the cut pieces in boiling water $(100^{0}\text{C})$ for 1 minute to facilitate the removal of the skin by hand (after cooling sufficiently to handle)
Filleting and Trimming	g:	The steaks are filleted and trimmed to remove red meat and bones.
Size cutting	:	Cut the fillets to 5.7 cms for 8-Oz. cans and 9.0cms for Quarter Dingley cans.
Brining ↓	:	By dipping in saturated salt solution (at room temperature) for 10 minutes (Addition of 1% acetic acid to brine for improvement of texture is optional)
Quick wash	:	By dipping in fresh water, to remove excess brine on surface.
Packing	:	Pack 210 gram in 8-Oz. cans and 106 gram in Quarter Dingley cans.

Pre cooking	: At 5 psi (108.4 <sup>o</sup> C) for 60-75 minutes, to remove excess moisture from meat.
Draining	: By inverting the cooked cans over a perforated tray for 5 minutes.
Filling medium	: Add filling medium (brine, oil, tomato sauce curry to net weight, (i.e. 210 grams for 8-Oz. cans and 106 grams for Quarter Dingley cans)
Can seaming ↓	: By vacuum seaming or after proper heat exhausting.
Can Washing ↓	:
Retorting ↓	: At 10 psi (115.6 <sup>o</sup> C) 8-Oz. can 100 minutes for cans filled with oil and curry; 90 minutes for brine packs and 95 minutes for tomato sauce packs. Quarter Dingley can: 65 minutes for cans filled with oil and tomato sauce.
Cooling	:
Drying	:
Labeling	:
Storage	:
Observations:	

1.	Weight of raw material	:
2.	Weight of dressed fish	:
3.	Weight of steaks prior to cooking	:

4.	Weight of size cut fillets	:
5.	Weight of fillets packed	:
6.	Weight of fillets after precooking	:
7.	Weight of filling media added	:
8.	Size of can used	:
9.	Number of cans produced	:
10.	Number of persons involved & hours worked	:

**Calculations:** Calculate the dressed fish yield, steaks yield, filleting yield, precook loss, canning yield, yield rate and efficiency.