APPENDIX - I

Guidelines for isolation and preliminary identification of Salmonella organisms

Figure 1

ISOLATION OF SALMONELLA

Faeces/Internal organs
Enrichment medium (§§)
Selective medium (§§§)
Lactose (-ve) colony

Feed/Food products
Preenrichment medium (§)
Enrichment medium (§§)
Selective medium (§§§)
Lactose (-ve) colony

MacConkey Agar

a. TSI (H₂S* positive; Lactose ** -ve, Sucrose -ve; Glucose positive)
b. Urea (-ve)
c. Motility (positive) except for S. pullorum & S. gallinarum
d. 'O-1' phage (positive)
e. Polyvalent sera (positive)
f. Morphology (Gram -ve rods)
g. Biochemical reactions
h. Serotyping

contd........
APPENDIX - I

Figure - 2

Quantity of sample and Pre-enrichment/Enrichment medium

<table>
<thead>
<tr>
<th>Sample</th>
<th>Pre-enrichment ($)</th>
<th>Enrichment ($$$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faeces 1 - 5 gm</td>
<td>-</td>
<td>10 - 50 ml</td>
</tr>
<tr>
<td>Rectal/Coloanal swab</td>
<td>-</td>
<td>10 ml</td>
</tr>
<tr>
<td>Poultry litter 2 - 5 gm</td>
<td>-</td>
<td>10 - 20 ml</td>
</tr>
<tr>
<td>from 5 spots</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal organs 0.1 - 0.5 gm</td>
<td>-</td>
<td>10 - 20 ml</td>
</tr>
<tr>
<td>Feed/Food products 25 gm</td>
<td>225 ml</td>
<td>100 ml (10 ml of</td>
</tr>
<tr>
<td></td>
<td></td>
<td>pre-enrichment growth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>is inoculated in 100 ml)</td>
</tr>
</tbody>
</table>

* Rarely -ve; ** Late lact positive in Sub genus III (Arizom); Positive $: Nutrient broth or buffered peptone water;

$$ Enrichment: Tetrathionate broth with brilliant green 42° - 43° C/24-48 hrs.

Selenite broth 37°C/24 - 48 hours.

$$$ Selective medium: Salmonella-Shigella Agar (S.S.Agar)
Desoxycholate citrate agar (DCA)
Brilliant green MacConkey agar (BGMA) etc.

N.B.: Recent references
