

The Test Culture of some Microorganisms with Whale Meat Peptone

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This experiment was carried out to determine the difference of value of utilization between the samples and market-peptones. Market peptones were used as follow ;

Teruuchi's, Witte's, Carneau's and Chaptoteaut's Peptone.

Experimental

Incubation-condition ;

Culture media ; Peptone-water prepared with the some kinds of peptones as above described.

Test-strains ; B. coli communis, B. typhi, Pneumo coccus, B. dysenterie Minoda, V. cholerae, B. subtilie M. B. 25, Staph. coccus aureus Terajima, B. pyocyaneus.

Incubation ; 37°C., 24 hrs.

Result ;

The amount of increased bacillus, the formation of dyestuff and H₂S are shown as follow :

B. Coli communis

| Peptone | Hours | | | | Order | Indol-formation | | | |
|-------------|-------|----|----|-----|-------|------------------|---|-------------------|---|
| | 6 | 12 | 18 | 24 | | Ehrlich's Method | | Kitazato's Method | |
| Sample | + | + | ## | ### | 1 | + | 2 | + | 5 |
| Teruuchi | ## | ## | ## | ### | 2 | ## | 1 | ## | 3 |
| Carneau | + | ## | ## | ### | 3 | + | 5 | ## | 2 |
| Witte | ± | + | + | ## | 5 | ## | 4 | ## | 4 |
| Chaptoteaut | + | ## | ## | ## | 4 | ## | 3 | ## | 1 |

B. typhi

| Peptone | Hours | | | | Order |
|-------------|-------|----|-----|-----|-------|
| | 6 | 12 | 18 | 24 | |
| Sample | + | ## | ### | ### | 2 |
| Teruuchi | + | ## | ## | ## | 1 |
| Carneau | + | ## | ## | ## | 4 |
| Witte | + | + | + | ## | 5 |
| Chaptoteaut | + | ## | ## | ## | 3 |

Pneumococcus 1

| Peptone | Hours | | | | Order |
|-------------|-------|----|----|----|-------|
| | 6 | 12 | 18 | 24 | |
| Sample | ## | ## | ## | ## | 4 |
| Teruuchi | ## | ## | ## | ## | 1 |
| Carneau | ## | ## | ## | ## | 5 |
| Witte | ## | ## | ## | ## | 3 |
| Chaptoteaut | + | ## | ## | ## | 2 |

| B. dysenteriae Minoda | | | | | | V. cholerae O. | | | | | | | |
|-----------------------|---|----|----|----|-------|----------------|---|----|----|----|-------|-----------------|-------|
| Hours | 6 | 12 | 18 | 24 | Order | Hours | 6 | 12 | 18 | 24 | Order | Indol-formation | Order |
| Peptone | | | | | | Peptone | | | | | | | |
| Sample | + | + | + | + | 4 | Sample | + | + | + | + | 1 | + | 5 |
| Teruuchi | + | + | + | + | 1 | Teruuchi | + | + | + | + | 4 | + | 4 |
| Carneau | + | + | + | + | 2 | Carneau | + | + | + | + | 3 | + | 5 |
| Witte | ± | + | + | + | 5 | Witte | + | + | + | + | 5 | + | 2 |
| Chaptoteaut | + | + | + | + | 3 | Chaptoteaut | ± | + | + | + | 2 | + | 1 |

The experiments above described led summarily to the results as follow :

| Peptone | Order of Bac.-growth | | | | | Order of Indol-formation | | |
|-------------|----------------------|---|---|---|---|--------------------------|---|---|
| Sample | 1 | 1 | 2 | 4 | 4 | 2 | 3 | 5 |
| Teruuchi | 1 | 1 | 1 | 2 | 4 | 1 | 3 | 4 |
| Carneau | 2 | 3 | 3 | 3 | 3 | 2 | 5 | 5 |
| Witte | 2 | 5 | 5 | 5 | 5 | 2 | 4 | 4 |
| Chaptoteaut | 2 | 2 | 3 | 3 | 4 | 1 | 1 | 3 |

(i) The amount of increased Bac. Incubation ; 24 hrs, Peptone-water, pH 7.0

| Strain | B. subtilis M. B. :5 B. pyocyaneus | | | | Staph. aureus Terajima | |
|-------------|------------------------------------|---|-------|---|------------------------|---|
| | Order | | Order | | Order | |
| Peptone | | | | | | |
| Teruuchi | ## | 1 | ## | 1 | ## | 1 |
| Witte | + | 4 | + | 2 | ## | 1 |
| Sample | ## | 2 | ## | 1 | ## | 1 |
| Carneau | ## | 3 | ## | 1 | ## | 1 |
| Chaptoteaut | ## | 3 | ## | 1 | ## | 1 |

(ii) B. typhi ; H₂S-Formation tested by Lead-acetate-paper. pH 6.8 (iii) Formation of dyestuff and Indol. B. Pyocyaneus. Incubation ; 36hrs, pH 7.0

| Hours | Reaction | | Indol-formation | | | Growth |
|-------------|----------|----|-----------------|------------------|-------------------|--------|
| | 24 | 36 | Dyestuff | Ehrlich's Method | Kitazato's Method | |
| Peptone | | | | | | |
| Teruuchi | ## | ## | Teruuchi | - | ## | ## |
| Witte | + | + | Witte | ## | + | + |
| Sample | - | - | Sample | - | + | ## |
| Carneau | + | ## | Carneau | + | + | + |
| Chaptoteaut | - | - | Chaptoteaut | + | + | ## |

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