

LAMPIRAN II PERHITUNGAN

Penentuan Kadar Protein

$$\% \text{ Protein} = \% N \times f \quad k$$

$$\% N = \frac{V_{ti} (m_{sc} - m_b) \times N_{ti} \times 14,008}{B \quad S_c} \times 100\%$$

Keterangan :

V = Volume titran yang terpakai untuk sampel dan blanko

N = Normalitas titran

14,008 = Berat atom Nitrogen

Besarnya faktor perkalian untuk beberapa bahan disajikan pada tabel berikut ini :

Faktor Perkalian Beberapa Bahan Makanan

No	Macam Bahan	Faktor Perkalian
1	Bir, sirup, biji-bijian, ragi	6,25
2	Buah –buahan, the, anggur, malt	6,25
3	Makanan ternak	6,25
4	Beras	5,95
5	Roti, gandum, macaroni, mie	5,70
6	Kacang tanah	5,46
7	Kedele	5,75
8	Kenari	5,18
9	Susu	6,38
10	Gelatin	5,55

(Sudarmadji, 1989).

A. Konsentrasi papain 20% dari berat daging ikan

Hari Ke-

$$1. \%N = \frac{(5 \text{ m} - 4 \text{ m}) \times 0,0 \text{ N} \times 1,0}{1 \text{ m}} \times 100\%$$

$$= 0,1681 \%$$

$$\% P = 0,1681 \times 6,25$$

$$= \mathbf{1,0506 \%$$

$$2. \%N = \frac{(5 \text{ m} - 4 \text{ m}) \times 0,0 \text{ N} \times 1,0}{1 \text{ m}} \times 100\%$$

$$= 0,1961\%$$

$$\% P = 0,1961 \times 6,25$$

$$= \mathbf{1,2257 \%$$

$$3. \%N = \frac{(5 \text{ m} - 4 \text{ m}) \times 0,0 \text{ N} \times 1,0}{1 \text{ m}} \times 100\%$$

$$= 0,1961\%$$

$$\% P = 0,2241 \times 6,25$$

$$= \mathbf{1,4000 \%$$

$$4. \%N = \frac{(5 \text{ m} - 4 \text{ m}) \times 0,0 \text{ N} \times 1,0}{1 \text{ m}} \times 100\%$$

$$= 0,2521\%$$

$$\% P = 0,2521 \times 6,25$$

$$= \mathbf{1,5759 \%$$

$$5. \%N = \frac{(5 \text{ m} - 4 \text{ m}) \times 0,0 \text{ N} \times 1,0}{1 \text{ m}} \times 100\%$$

$$= 0,2801\%$$

$$\begin{aligned} \% P &= 0,2801 \times 6,25 \\ &= \mathbf{1,7510 \%} \end{aligned}$$

$$6. \%N = \frac{(5 \text{ m} - 4 \text{ m}) \times 0,0 N \times 1,0}{1 \text{ m}} \times 100\%$$

$$= 0,3081\%$$

$$\begin{aligned} \% P &= 0,3081 \times 6,25 \\ &= \mathbf{1,9256 \%} \end{aligned}$$

B. Konsentrasi papain 30% dari berat daging ikan

Hari Ke-

$$1. \%N = \frac{(5 \text{ m} - 4 \text{ m}) \times 0,0 N \times 1,0}{1 \text{ m}} \times 100\%$$

$$= 0,1961\%$$

$$\begin{aligned} \% P &= 0,1961 \times 6,25 \\ &= \mathbf{1,2257 \%} \end{aligned}$$

$$2. \%N = \frac{(5 \text{ m} - 4 \text{ m}) \times 0,0 N \times 1,0}{1 \text{ m}} \times 100\%$$

$$= 0,2801 \%$$

$$\begin{aligned} \% P &= 0,2801 \times 6,25 \\ &= \mathbf{1,7506 \%} \end{aligned}$$

$$3. \%N = \frac{(5 \text{ m} - 4 \text{ m}) \times 0,0 N \times 1,0}{1 \text{ m}} \times 100\%$$

$$= 0,3362 \%$$

$$\begin{aligned} \% P &= 0,3362 \times 6,25 \\ &= \mathbf{2,1012 \%} \end{aligned}$$

$$\begin{aligned}
 4. \quad \%N &= \frac{(6 \text{ m} - 4 \text{ m}) \times 0,0 \text{ N} \times 1,0}{1 \text{ m}} \times 100\% \\
 &= 0,4482\% \\
 \% P &= 0,4482 \times 6,25 \\
 &= \mathbf{2,8016 \%}
 \end{aligned}$$

$$\begin{aligned}
 5. \quad \%N &= \frac{(7 \text{ m} - 4 \text{ m}) \times 0,0 \text{ N} \times 1,0}{1 \text{ m}} \times 100\% \\
 &= 0,7\% \\
 \% P &= 0,7 \times 6,25 \\
 &= \mathbf{4,3775 \%}
 \end{aligned}$$

$$\begin{aligned}
 6. \quad \%N &= \frac{(7 \text{ m} - 4 \text{ m}) \times 0,0 \text{ N} \times 1,0}{1 \text{ m}} \times 100\% \\
 &= 0,7284\% \\
 \% P &= 0,7284 \times 6,25 \\
 &= \mathbf{4,5525 \%}
 \end{aligned}$$

C. Konsentrasi papain 40% dari berat daging ikan

Hari Ke-

$$\begin{aligned}
 1. \quad \%N &= \frac{(5 \text{ m} - 4 \text{ m}) \times 0,0 \text{ N} \times 1,0}{1 \text{ m}} \times 100\% \\
 &= 0,3081\% \\
 \% P &= 0,3081 \times 6,25 \\
 &= \mathbf{1,9261 \%}
 \end{aligned}$$

$$\begin{aligned}
 2. \quad \%N &= \frac{(6 \text{ m} - 4 \text{ m}) \times 0,0 \text{ N} \times 1,0}{1 \text{ m}} \times 100\% \\
 &= 0,6163 \%
 \end{aligned}$$

$$\begin{aligned} \% P &= 0,6163 \times 6,25 \\ &= \mathbf{3,5020 \%} \end{aligned}$$

$$3. \% N = \frac{(6 \text{ m} - 4 \text{ m}) \times 0,0 N \times 1,0}{1 \text{ m}} \times 100\%$$

$$= 0,6443 \%$$

$$\begin{aligned} \% P &= 0,6443 \times 6,25 \\ &= \mathbf{4,0273 \%} \end{aligned}$$

$$4. \% N = \frac{(7 \text{ m} - 4 \text{ m}) \times 0,0 N \times 1,0}{1 \text{ m}} \times 100\%$$

$$= 0,7844\%$$

$$\begin{aligned} \% P &= 0,7844 \times 6,25 \\ &= \mathbf{4,9028 \%} \end{aligned}$$

$$5. \% N = \frac{(7 \text{ m} - 4 \text{ m}) \times 0,0 N \times 1,0}{1 \text{ m}} \times 100\%$$

$$= 0,8684\%$$

$$\begin{aligned} \% P &= 0,8684 \times 6,25 \\ &= \mathbf{5,4281 \%} \end{aligned}$$

$$6. \% N = \frac{(7 \text{ m} - 4 \text{ m}) \times 0,0 N \times 1,0}{1 \text{ m}} \times 100\%$$

$$= 0,8965\%$$

$$\begin{aligned} \% P &= 0,8965 \times 6,25 \\ &= \mathbf{5,6031 \%} \end{aligned}$$