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Hitung manual data growplant dan hasil panen

* Data growthplant

1. Control
   - 4,17 + 5,56 + 5,18 + 6,11 + 4,5 + 4,61 + 5,17 + 4,53 + 5,33 + 5,14 = 50,37
2. Treatment 1
   - 4,81 + 4,17 + 4,41 + 3,59 + 5,87 + 5,83 + 6,03 + 4,89 + 4,32 + 4,69 = 46,61
3. Treatmen 2
   - 6,31 + 5,12 + 5,54 + 5,5 + 5,37 + 5,29 + 4,92 + 6,15 + 5,8 + 5,26 = 55 + 26
     - T = 152,19, n = 10, N = 50

* JKA

$$= \frac{\sum_{j=1}^{k} T_j^2}{n} - \frac{T^2}{n} = \frac{775,82 - 772,106}{3,76 \approx 3,8}$$

$$= 1$$

* JKT

$$\sum X_1 J^2 = 786,318$$

$$JKT = \frac{k}{2} \cdot \frac{n}{2} = \sum J^2 - \frac{T^2}{N}$$

$$= 786,318 - \frac{152,19^2}{50}$$

$$= 14,258$$

Catatan :

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c. JKG = JKT - JKA
= 14,258 - 3,8
= 10,458

* Melakukan uji hipotesis
Lo JKA = 3,8 JKT = 14,258, JKG = 10,458
K = 3

$V_1 = K - 1$ $V_2 = n - K$
$= 3 - 1$ $= 30 - 3$
$= 2$ $= 27$.

* Kg
(i) $H_0 : \sigma_1 = \sigma_2 = \sigma_3$
(ii) $H_1 = \sigma_1 \neq \sigma_2 \neq \sigma_3$
(iii) $\alpha = 5\% = 0,05$

Fhitung
$= \frac{JKA / V_1}{JKG / V_2}$

$= \frac{3,8/2}{10,458/27} = 4,90$

F tabel = f (2,27) = 3,35

Catatan : # Tolak Ho karena Fhitung > F tabel

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* Data Hasil Panen

1. Dosis pupuk 1 (2kg) = 10,2
2. Dosis pupuk 2 (3kg) = 12
   T = 43,2
3. Dosis pupuk 3 (3kg) = 21
   n = 3 N = 9

* $JKA = \frac{\sum_{j=1}^{k} T_{.j}^2}{n} - \frac{T^2}{N} = \frac{689,04}{3} - \frac{1866,124}{9}$

$= 22,32$

* $JKT = 232,26 - \frac{1866,24}{9} = 24,9$

* $JKG = JKT - JKA = 24,9 - 22,32$

$= 2,58.$

* Uji hipotesis

JKA = 22,32 , JKT = 24,9 , JKG = 2,58

k = 3

$V_1 = k - 1 = 2$ $V_2 = n, k = 6$

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* Uji

(i) $H_0 = \sigma_1 = \sigma_2 = \sigma_3$

(ii) H_1 $\sigma_1 \neq \sigma_2 \neq \sigma_3$

(iii) $\alpha = 0{,}05$

F. Hitung $\dfrac{JKA/V_1}{JKG/V_2} = \dfrac{22{,}32/2}{2{,}58/6} = 22{,}95$

F. tabel : $F(2,6) = 5{,}14$

* Tolak H_0 karena F hitung > F tabel.