Distribution of t-Student Under Characters of Anthocyanin Corn

Paesal[1,a,*], Syuryawati[2,a], M. Yasin HG[3,b]

[a]Researcher Staff of BRIN, [b]Lecturer of UIM Makassar

[*]faesalserealia@gmail.com

Abstract. The characters of anthocyanin corn was to studied on t-student distribution under two kinds of soil in Muneng Probolinggo and Maros experimental farm of ICERI. Zero hypothesis (H0) vs. H1 was be define H0: $\mu i = \mu j$ vs H1: $\mu i \neq \mu j$, (μ: means of two variables, i,j : 1,2, . .10, $i \neq j$ from two kinds of soil). The t-student function was be given in model: $f(x) = \Gamma [(k + 1)/2]/[\Gamma(k/2)].1/[\sqrt{(k\pi)}].1/[(1+x2/k)(k+1)/2]$: variable space: k>0. expected value: $E(x) = \mu = 0$, k bigger 1, variances $\sigma2$: $E(x-\mu)2 = Ex2 - E(x) E(x) = k/(k-2)$. Statistical test by t.cal = (xi - xj)/$\sqrt{[(si2/ni) + (sj2/nj)]}$ under df.: n1 + n2 - 2, si, sj: standard error of means in two sites. Soil characters in Maros was analyzed by, clay-sand-dust (28-40-43) % and in Muneng (21-56-21.3) %. The experiment was conducted in 2016 by spacing 75x20 cm in land of 10 acres, fertilizer Urea – Ponska (300-200) kg/ha. The result shows that there are four variables that were significant to rejected of H0 and could be tested that the different characters of anthocyanin corn in two locations, variable of yield were different 23.4%, period of male-tasseling were three days, and diameter of cob 15,5%. The anthocyanin corn was be opportunity to develop under Maros experimental farm than in Muneng Probolinggo.

Keyword: anthocyanin corn, t-student, kind of soil.