HUBUNGAN ANTARA STRUKTUR TEGAKAN DENGAN PRODUKSI GETAH PINUS DI KPH KEDU UTARA PERUM PERHUTANI UNIT I JAWA TENGAH

(Distribusi Weibull Sebagai Penggambaran Struktur Tegakan)

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INTISARI

Salah satu aspek struktur hutan yang digunakan untuk mengidentifikasi kondisi hutan adalah sebaran diameter pohon. Struktur tegakan diduga memiliki hubungan dengan produksi getah Pinus. Tujuan penelitian ini: (1) memberikan gambaran struktur tegakan berupa sebaran diameter hutan Pinus dengan menggunakan distribusi Weibull, (2) mengetahui hubungan antara struktur tegakan dengan produksi getah Pinus.

Penelitian dilakukan di KPH Kedu Utara. Sampel plot sejumlah 15 ditempatkan secara *purposive*. Diameter dalam tegakan diukur dan data hasil getah dikumpulkan. *Distribution fitting* dengan model Weibull untuk menggambarkan pola sebaran diameter, uji homogenitas parameter dengan menggunakan Manova, serta analisis *cluster* dengan menggunakan *K- Means Cluster*. Hubungan antara struktur tegakan dengan produksi getah dijelaskan secara deskriptif.

Hasil penelitian menunjukkan bahwa pola sebaran diameter dapat digambarkan dengan model sebaran Weibull dan dapat dikelompokkan menjadi tiga klaster, dengan rata-rata parameter: (1) beta = 2,797; gamma = 21,727; μ = 19,607; (2) beta = 2,659; gamma = 14,066; μ = 22,783; (3) beta = 2,575; gamma = 19,645; μ = 23,108. Rata-rata produksi getah (kg/bulan/ha) pada masing-masing klaster sebesar: (1) 22,15 - 83,87; (2) 19,35 - 94,20; (3) 4,3 - 116,26.

Kata kunci : sebaran diameter, getah pinus, distribusi Weibull

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CORRELATION BETWEEN STAND STRUCTURE WITH PRODUCTION OF PINE RESIN IN KPH KEDU UTARA PERUM PERHUTANI UNIT I CENTRAL JAVA

(Distribusi Weibull As Representation Of Stand Structure)

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ABSTRACT

One of forest structure aspect to identify forest condition is tree diameter distribution. Stand structure can be estimated to represent the correlation with production of Pine resin. The aims of the research are: (1) to describe stand structure with describe diameter distribution of Pine forest use Weibull distribution, (2) to know the correlation between stands structure with Pine resin prodution.

The research was conducted in KPH Kedu Utara. 15 Sample plots are located purposively. Stand diameters were measured and Pine resin products were collected. *Distribution fitting* with Weibull distribution to represent diameter distribution and homogenity test of parameters with Manova, then cluster analysis with K- Means Cluster. The correlation between stand structure with Pine resin producs was described.

The result showed that diameter distribution pattern could be described by Weibull distribution and can be classified into three clusters with average of parameter: (1) beta = 2,797; gamma = 21,727; μ = 19,607; (2) beta = 2,659; gamma = 14,066; μ = 22,783; (3) beta = 2,575; gamma = 19,645; μ = 23,108. Average of resin production (kg/month/ha) for every klaster are: (1) 22,15 - 83,87; (2) 19,35 - 94,20; (3) 4,3 - 116,26.

Keywords : diameter distribution, Pine resin, Weibull distribution.

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