Početna stranica
Abecedni popis časopisa

Časopisi po područjima
Prirodne znanosti
Tehničke znanosti
Biomedicina i zdravstvo
Biotehničke znanosti
Društvene znanosti
Humanističke znanosti

Uredništva
Prijava novog časopisa

Croatian Journal of Forest Engineering, Vol.28 No.2 Prosinac 2007.

Izvorni znanstveni članak

Evaluation of two harvesting systems for the supply of wood-chips in Norway spruce forests affected by bark beetles

Tobias Cremer
Borja Velazquez-Marti

Puni tekst (Engleski) Str. 145 - 155 *(pdf, 274.83 KB) downloads: 439*

Sažetak
For sanitary reasons, spruce trees affected by bark beetles (Ips typographus L.) should be re¬moved out of the stand as soon as possible, to avoid the propagation of the beetles to healthy trees. One possibility, to utilize the accruing crown material in a reasonable way (instead of burning it) could be, to use it as wood-chips for biomass heating plants. The aim of this project was therefore to determine the productivity of two harvesting and processing systems for wood-chips as a joint-product of round wood in Norway spruce (Picea abies L.) forests affected by bark beetles. Two systems with different sorting criteria were studied: processing of sawlogs, pulpwood and wood-chips (System A) in comparison to the process¬ing of only sawlogs and wood-chips (System B). In System A, the energy wood was chipped with a chipper mounted on a forwarder that was working directly in the stand. In System B, the material to be chipped was previously concentrated along the forest road with a forwarder, and a chipper mounted on a truck was used for chipping.
In System A, 0.18 t of dried chips could be harvested per m3 of round wood, and in System B 0.26 t of dried chips per m3 of round wood. The cost of chipping in the stand was 4.74 ./m3 of chips and the cost of chipping along the forest road after transporting the chipping material by a forwarder was 5.63 ./m3 of chips. Therewith, a cost-covering supply of wood-chips may be obtained out of such stands. Concerning the ratio of energy input to energy output it can be said that the systems required 1.5% and 2% of energy output that was obtained using the respective system.

Ključne riječi
biomass; wood-chips; Picea abies; bark beetle

Pretraživanje članaka
traži
Napredno pretraživanje
Upute za pretraživanje

Moj profil
Registracija novih korisnika
Korisnička oznaka (email)
Lozinka
prijava
Zaboravili ste lozinku?