

**Title** Analysis of the process of biomass harvesting with collecting-chippers fed by pick up headers in plantations of olive trees

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### **Abstract**

The resources used in the collection of residual biomass, originating from the pruning operations of olive trees, by means of chippers fed by pick up headers were determined. The chippers were evaluated for the harvesting of the ligneous materials aligned between the crop lines. The resources employed were measured as labour hour per hectare, machine hours per hectare and fuel consumption. This quantification permits the economic analysis based on knowing the prices of these resources in a particular moment. The results show that manual alignment takes  $5 \text{ h ha}^{-1}$ , the chipper takes  $1.6 \text{ h}$  of machinery  $\text{ha}^{-1}$  and  $4.8 \text{ h}$  of man  $\text{h ha}^{-1}$ . The fuel consumption is  $4.75 \text{ l}$  of gas-oil  $\text{h ha}^{-1}$ , obtaining  $1.98 \text{ t}$  of dried biomass per hectare.