

Fertilization with Seaweed (*Laminaria japonica*) on the characteristics of the bunch and the quality of the grape must of 'Cabernet Sauvignon'

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The objective of the present work was to study the influence of the foliar application of seaweed (*Laminaria japonica*), on the bunch and on the must in the 'Cabernet Sauvignon' grape. The experiment was carried out in the years 2021/2022, in a 21-year-old commercial vineyard, in the municipality of "Dom Pedrito" – "Rio Grande do Sul" (RS). A completely randomized experimental design was used, with 4 treatments and 4 replications (7 plants per replication). The treatments were: T1- control treatment; T2- Exal Powder 5 g L⁻¹; T3- Hidro Exal 15 ml L⁻¹; T4- Exal Powder 5 g L⁻¹+ Hidro Exal 15 ml L⁻¹. Six applications were performed (every 15 days). The following were evaluated in the bunch: length (cm), width (cm), weight (g) and number of berries. Using the WineScan™ SO₂ equipment (FOSS®, Denmark), the following were evaluated in the must: sugars (g L⁻¹), pH, tartaric acid (g L⁻¹), malic acid (g L⁻¹), gluconic acid (g L⁻¹), ammonia (mg L⁻¹), potassium content (mg L⁻¹). For all treatments and all variables analyzed, no statistical difference was obtained. It is preliminarily concluded that the application of foliar fertilizer based on seaweed (*Laminaria japonica*) did not influence the analyzed characteristics of the bunch and must of the 'Cabernet Sauvignon' vines.

Keywords: *Vitis vinifera*, sustainability, organic fertilizer, organic viticulture, climate change.

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