



APFC PINE CONE YIELD EVALUATION: INFORMATION TOOL FOR FOREST PRODUCERS

Margarida Gaspar¹, Conceição Santos Silva², Teresa Afonso¹, Mariana Ribeiro Telles¹, Pâmela Borges¹, Marta Souto Barreiros¹ (¹APFC, ²UNAC)

mvg@apfc.pt | www.apfc.pt

INTRODUCTION

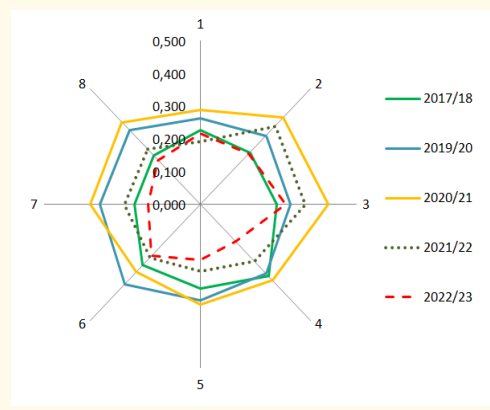
The stone pine (*Pinus pinea* L.) is becoming more important in Portugal due to its adaptability to the environment and the high value of its edible fruit, the pine nuts. The study developed by APFC is a tool to provide annual information on the pine cone yield considering the kernel, and will allow forest producers to better negotiate its market value.



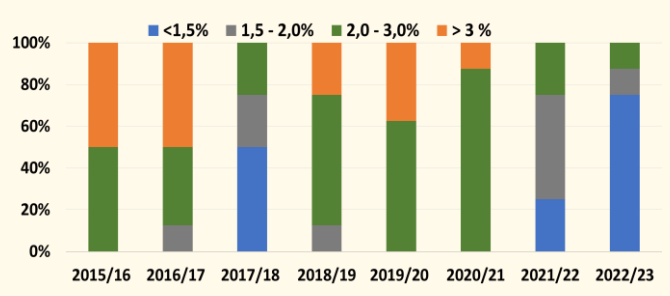
RESULTS AND DISCUSSION

Taking into account the time series of the trial, the average weight of the pine cone in the 2022/23, was lower than the average of the remaining campaigns.

In 2022/23 → 75% of sites had yield of pine cone in pine nut kernels <1,5%.



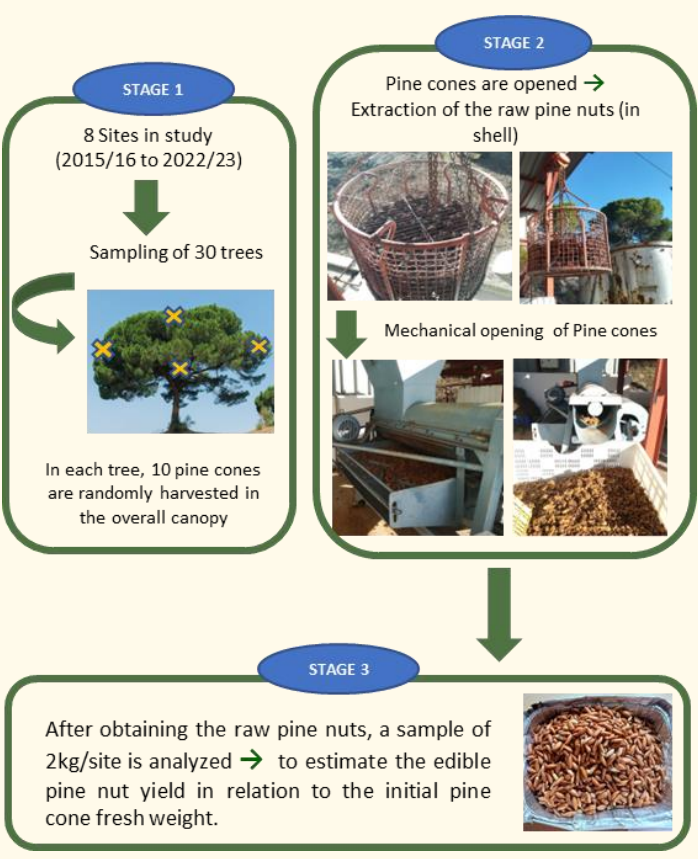
Considering 4 classes of yield of pine cone in pine nut kernels, the yield decreased.



OBJECTIVE

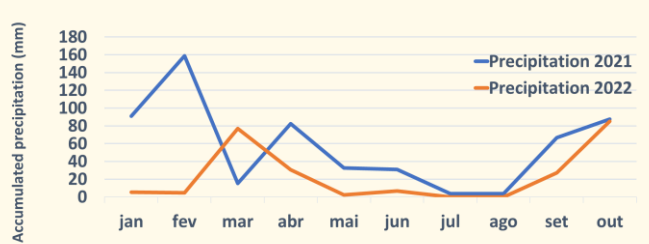
To contribute to a greater knowledge on pine cone yield evaluation, APFC implemented since 2015 an expeditious methodology with the objective of evaluating the pine cone yield annually, in sites of the municipality of Coruche. To evaluate the interannual variability of the pine cone production within the period from 2015 to 2022 and between sampling sites.

METHODOLOGY



According to the precipitation data recorded in meteorological stations, throughout 2022 precipitation was lower than the other years (ex: 2021 versus 2022) → that indicates the smaller size of the pine cone are related to the lower precipitation in the determining period for its growth.

Those results are aligned with scientific publications.



The 2022/23 campaign presents a lower variability in terms of pine cone size compared to the previous campaign, and registered a high variability in terms of yield of pine cone in pine nut kernels, compared to the previous campaign.

CONCLUSION

Due to climate change, it is essential that APFC continues to develop and improve this methodology allowing forest producers to know with more details the yield of pine cones before their commercialization.