

AUXIN APPLICATION TO ENHANCE ROOTING OF DALMATIAN SAGE, IMMORTELE AND LAVANDIN

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INTRODUCTION

The Croatian coast and islands are known by its richness of naturally occurring aromatic and medicinal plants. The Dalmatian sage (*Salvia officinalis* L.) and immortelle (*Helichrysum italicum* /Roth/G.Don) are native plants distributed along coast and islands, while lavandin (*Lavandula x intermedia* Emeric ex Loisel.) is successfully grown commercially and in gardens. The aim of this work was to test the efficacy of auxins for rooting of plants collected at natural habitat in Croatia.



MATERIAL AND METHODS

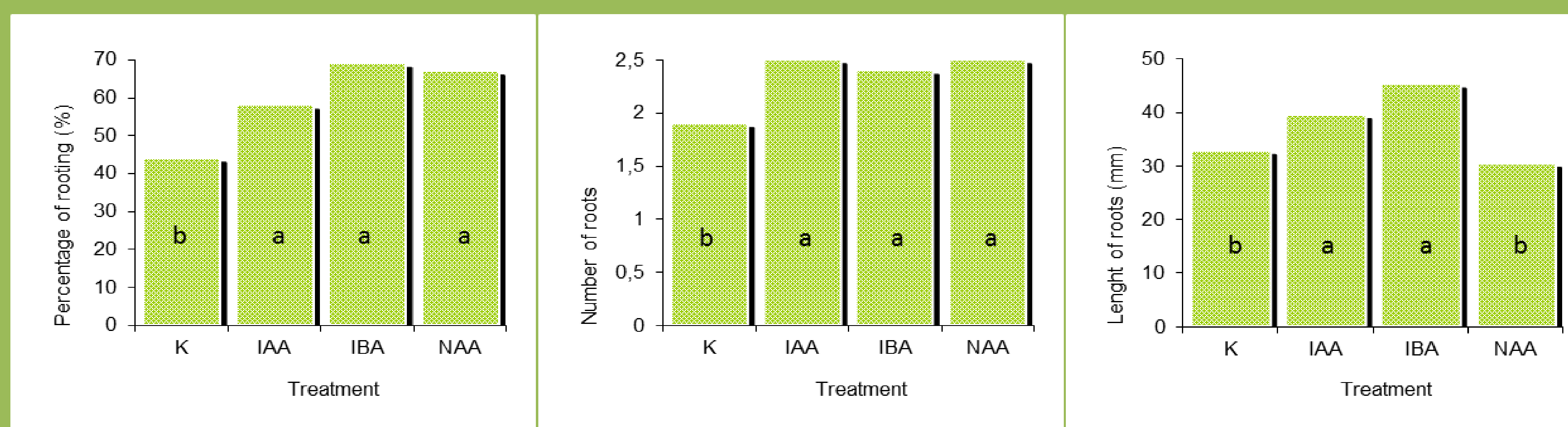
The sage and immortelle were collected at one location, whereas lavandin was collected at three locations at island Hvar. The cuttings were dipped in solution containing indole-3-acetic acid (IAA) at 1.0 mgL⁻¹, indole-3-butyric acid (IBA) 0.3 mgL⁻¹, 1-naphthaleneacetic acid (NAA) at 0.5 mgL⁻¹, or tap water (control – K), and grown under conditions favorable for rooting.

RESULTS



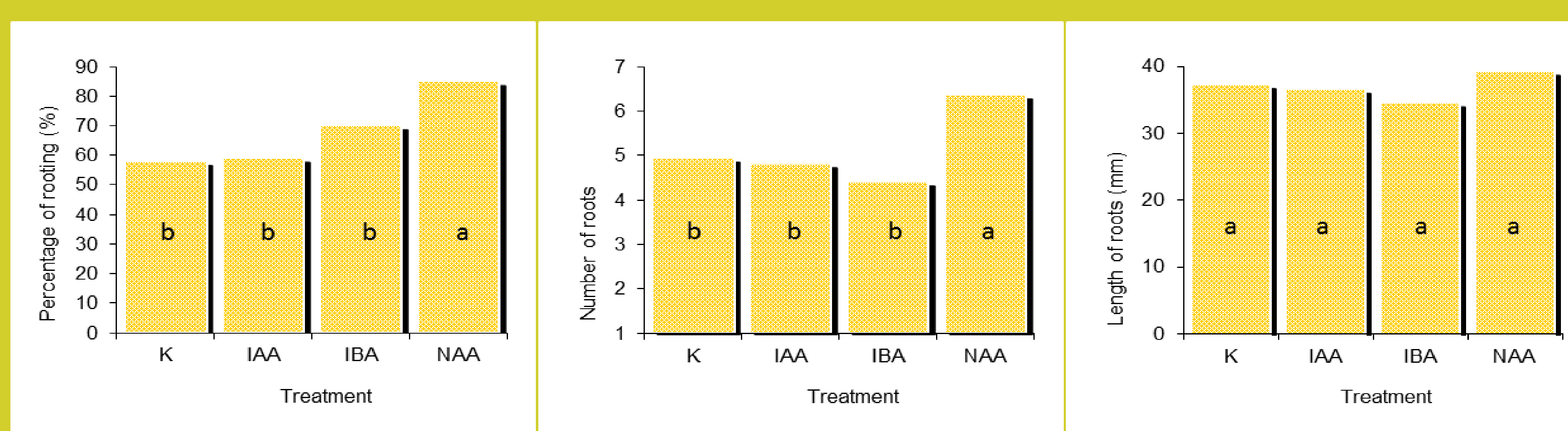
DALMATIAN SAGE

The rooting percentage of sage cuttings was enhanced by application of auxins (67% to 69%) compared to control (44%), and similar trend was observed for number of roots per cutting. Application of IAA or IBA increased sage root length compared to control or NAA.



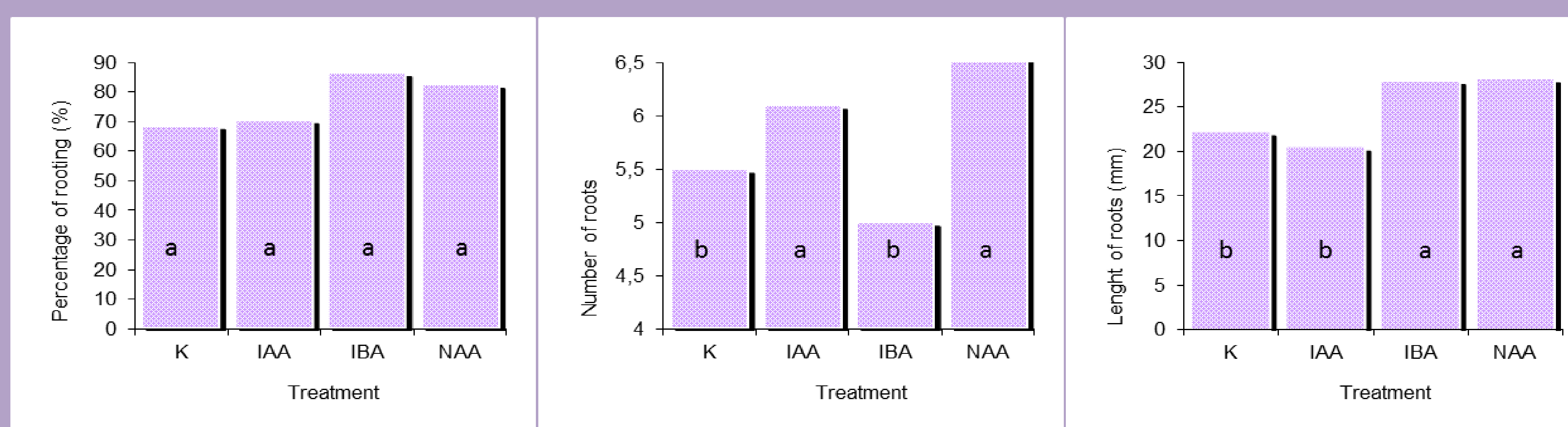
IMMORTELE

The rooting percentage of immortelle was under 60% when IAA and control were applied, while NAA application resulted in 85% rooted cuttings. The application of NAA increased number of roots, but no effect of auxins on immortelle cutting root length was observed.



LAVANDIN

There was no difference in rooting percentage of lavandin cuttings considering auxin application compared to control. The IAA and NAA application increased the number of roots per cutting compared to control and IBA, while length of the roots was increased by IBA and NAA application compared to control and IAA.



CONCLUSION

Auxin application can significantly increase rooting percentage of sage and immortelle and ensure fast and true-to-type propagation of genotypes with desirable morphological and biochemical traits.