



جامعة الموصل
كلية الزراعة والغابات

تأثير مواعيد الزراعة والتجريح واستخدام الاوكسينات
ومستخلص نبات القرفة في تجذير عقل اشجار نبات فرشة
Melaleuca viminalis L. البطل

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بإشراف

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٣. ان محلول التجذير C4 كان الافضل من بين محاليل التجذير الاخرى حيث ادى الى زيادة نسبة التجذير وجميع الصفات الاخرى للمجموع الجذري ، وكذلك طول النمو الخضري والوزن الرطب والجاف للمجموع الخضري ، اما معاملة المقارنة فقد اعطت اعلى قيمة لعدد الاوراق .

٤. حقق التداخل الثنائي المشترك بين الموعد الثاني لزراعة العقل ، وعملية التجريح اعلى نسبة مئوية للتجذير إذ بلغت 53.33% ، واعطت اعلى القيم للصفات الجذرية الاخرى عدا قطر الجذر والوزن الرطب والجاف للمجموع الجذري ، وكذلك لطول النمو الخضري الحديث ولعدد الاوراق والوزن الرطب والجاف للمجموع الخضري .

٥. اعطى الموعد الثاني بالتداخل مع محلول التجذير C4 اعلى نسبة مئوية للتجذير والتي بلغت 76.67% ، وكذلك لعدد الجذور وطولها وعدد الاوراق وطول النمو الخضري الحديث والوزن الرطب والجاف للمجموع الخضري .

٦. ادت المعاملة بمحلول التجذير C4 وللعقل غير المجرحة الى زيادة النسبة المئوية للتجذير، إذ بلغت 62.22% ، وكذلك لعدد الجذور وطولها وقطرها ولطول النمو الخضري وعدد الاوراق .

٧. اما التداخل بين مواعيد زراعة العقل وعملية تجريحها ومعاملتها بمحاليل التجذير فقد حقق الموعد الثاني وبدون تجريح العقل وبالتداخل مع محلول التجذير C4 اعلى نسبة مئوية للتجذير ، حيث بلغت 80% ، وكذلك لعدد الجذور وطولها وطول النمو الخضري الحديث ولعدد الاوراق ، بينما اعطى الموعد الثاني وتجريح العقل مع محلول التجذير C3 اعلى قيمة للوزن الرطب والجاف للمجموع الخضري .

Summary

The study was conducted on the plant of the *Melaleuca viminalis* L. trees in the plastic house of the Department of Horticulture and landscape Design , College of Agriculture and Forestry, Mosul University for the period from January to July 2018 to study the effects of planting dates, which included 3 dates : 1 January , 15 February and 1 April , And Root Solution IBA , NAA and cinnamon extracts , which were C1 0 , C2 750 mg.l⁻¹ both of (IBA and NAA) , C3 1500 mg.l⁻¹ both of (IBA and NAA) , C4 750 mg.l⁻¹ both of (IBA and NAA) extract cinnamon 2 mg.100ml⁻¹, C5 750 mg.l⁻¹ (IBA and NAA) extract cinnamon 4 mg. 100 ml⁻¹, C6 2 mg.100ml⁻¹ extract cinnamon and C7 4 mg.100ml⁻¹ extract cinnamon, Using quick-dip method , wounding or don't wounding middle Cutting and comparing them. The experiment was carried out use dthe Randomized Complete Block Design (RCBD) with 3 replications and 8 cuttings per repeater (3 * 2 * 7). The data was statistically analyzed using the SAS (SAS , 2001) program and the results were summarized as follows:

1 .The plan date of cutting has a major effect on the success of these particular roots. The highest percentage of rooting was obtained when cultivating the cutting on 15 February and it was 44.76%. The response of the cultivated cutting was less than 39.52% for the first date and 25.23% for the third date. The second date was also reported highest value for the number of roots and their length, length of vegetative growth, number of dry leaves and wet and dry aboveground biomass .The highest values of root diameter , weight of total fresh roots and chlorophyll were observed in the first date .

2 .The process of wounding percentage in the second date of planting led to improve different plant components of agronomic performance such as root mass and the length of vegetative growth , the number of wet and dry leaves.

3 .The rooting solution C4 750mg.l⁻¹ both of (IBA and NAA) extract cinnamon 2 mg.100ml⁻¹, was the best compared with the other solutions, which increased the rooting rate and all other characteristics of the root mass as well as the length of vegetative growth and wet and dry weight of the vegetative group, The control was reported the highest value to the number of leaves.

4 .The interaction between the second date of taking the cutting and the process wounding achieved the highest percentage of rooting which was amounted to 53.33% and gave the highest values of other root traits as well as the length of modern vegetative growth and the number of leaves wet and dry of the total vegetative.

5 .The second date was given in combination with the rooting solution C4 750 mg.l⁻¹ both of (IBA and NAA) extract cinnamon 2 mg.100ml⁻¹ , The highest percentage of rooting, which was 76.67% , as well as the number of roots and length and number of leaves and the length of modern vegetative growth and wet and dry weight of the total vegetative.

6. Unwounded cuttings achieved highest rooting percentage (around 62%), number of roots, highest values of length and diameter as well as the vegetative performance when it was treated with , C4 750 mg.l⁻¹ both of (IBA and NAA) extract cinnamon 2 mg.100ml⁻¹.

7. As for the overlap between the dates of the cultivation of the cutting and the process of wounding and treatment of rooting solutions, the second date was achieved non-wounding and in conjunction with the rooting solution , C4 750 mg.l⁻¹ both of (IBA and NAA) extract cinnamon 2 mg.100ml⁻¹ , the highest percentage of rooting at 80% .The number of roots and the length and length of modern vegetative growth and the number of leaves, while the second date and the wounded of the cutting with the rooting solution C3 1500 mg.l⁻¹ both of (IBA and NAA) the highest value of wet and dry weight of the total vegetative.

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**Effect of planting dates , wounding , auxins
and cinnamon extract on the rooting of Bottle
brush (*Melaleuca viminalis* L.)**

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