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Control Of Broomrape
(Orobanche ramosa L.)
By Using Two (Herbicides)
And One Natural Product
(Neem Leaves Powder) On
Tomato Crop

By

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Dedication

to my parents

brothers

sisters

for all my love

Acknowledgement

Thanks above all to allah who offered me health to do this work

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Abstract

This study was conducted at the Agricultural Research Corporation farm, Shambat in the season 2004-2005. This study aimed for control of the parasitic flowering plant *Orobancha ramosa* on tomato plant.

The herbicides used were Goal at two doses (1.9 ml/L - 1.5/L ml) and Pursuit at two doses 1 ml/L - 0.5 ml/L. Neem leaves at two doses (10 gm / hole - 20 / hole). In three replicates. The results revealed that there were significant differences on *Orobancha ramosa* on number of *Orobancha* / plants and number of branches although effect on fresh and dry weights compared to control. The yield of tomato (number and weight of fruits) had been decreased by treatments of chemicals. Goal herbicide at two rates tested was not effective in controlling *Orobancha ramosa* these as Pursuit at two rates tested were significantly effective in decrease the number of *Orobancha ramosa*/plant and the shoots of *Orobancha*/plant. Neem leaves powder on the other hand also decreased the number of shoots of *Orobancha*. The effect of both Pursuit herbicide and Neem leaves on the fresh weight and dry weight also significantly low compared to control.

Goal herbicide also did not affect the fresh weight or dry weight of *Orobancha*. Yield of tomato was significantly increased over the control in Pursuit herbicides treatments and Neem leaves powder. Goal herbicides at two rates tested did not increase Tomato yield compared to control.

ملخص الدراسة

أجريت هذه الدراسة بمزرعة هيئة البحوث الزراعية شمبات موسم الشتاء 2004-2005 وكان الهدف من الدراسة معرفة مدى تأثير وفاعلية تطبيق مكافحة الكيمائية باستخدام مبيد الحشائش القول® wp Goal والبيرسوت وسحوق اوراق النيم لمكافحة طفيل الهالوك في محصول الطماطم . وقد استخدم مبيد الحشائش بجرعتين (1.5 ml - 1.9 ml) (1.5 ML/L-1 ml/L) / القول والبيرسوت على التوالي . ومسحوق النيم 10 جرام - 20 جرام للحفرة. في ثلاثة مكررات وقد اظهرت النتائج في هذه التجربة ان كل المعاملات ادت الى تأثير غير معنوي في خفض الاصابة بالهالوك وعددية الطفيل وفروعه والوزن الرطب والجاف مقارنة مع الشاهد. واطهرت النتائج ان مبيد الحشائش البيرسوت ادى الى خفض الاصابة بالهالوك في الجرعة الثانية ولكنه ادى للتأثير على الانتاجية حيث اصبح عدد الثمار كبير ولكن الوزن قليل وكانت اعلى انتاجية للطماطم قد لوحظت في الجرعة المنخفضة لاوراق النيم (10 GM/ hole) عند مقارنتها مع الجرعات الاخرى والشاهد. والنتائج التي اظهرتها التجربة في هذا العمل اوضحت ان مبيد الحشائش البيرسوت والقول اديا الى تأثير معنوي في خفض عددية طفيل الهالوك وعدد فروعه وكذلك الوزن الرطب والجاف مقارنة مع الشاهد ولكن في حالة الانتاجية هنالك تأثير غير معنوي على عددية الثمار ووزنها حيث كان اقل من عدديتها ووزنها كما في حالة مسحوق النيم . مما سبق يمكن التوصية باستخدام القول والبيرسوت بجرعات منخفضة لخفض الاصابة بالهالوك حتى لاتتأثر الانتاجية .

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