Tab. 1 Einfluss einer Bodendämpfung auf die Anzahl *Meloidogyne*-Larven / 100 ml Boden (± STABW; n=4) vor, nach und ein Jahr nach der Dämpfung in zwei Versuchen im Kanton Tessin (TI1; TI2), Schweiz

Versuch	August 2011	September 2011	Oktober 2012
TI 1	198 ± 28	0 ± 0	150 ± 124
TI 2	113 ± 31	0 ± 0	109 ± 155

Um die Wirkdauer der Temperaturbehandlung zu bestimmen, wurden 12 Monate nach der Dämpfung erneut Bodenproben in den Gewächshäusern entnommen. Es zeigte sich, dass die Anzahl der *Meloidogyne*-Larven wieder das Niveau der Populationsdichten vor der Behandlung erreicht hatten. Somit konnte demonstriert werden, dass die Wirkdauer einer thermischen Bodenbehandlung der einer chemischen Entseuchung entspricht und Schutz vor Schäden durch Wurzelgallennematoden für eine Hauptkultur bietet.

Literatur

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174a - Impact of *Meloidogyne hapla* initial population densities on damage threshold to three rose rootstock species

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The relationship between initial population densities (*Pi*) of *Meloidogyne hapla* on growth of three rose rootstocks (*Rosa corymbifera* 'Laxa', *R. multiflora* and *R. canina* ' Inermis') and nematode population development was studied. Each plant species was inoculated with ranges of nematode densities of 0, 0.062, 0.125, 0.25, 0.50, 1, 2, 4, 8, 16, 32, 64 and 128 second-stage juveniles g^{-} soil and were allowed to grow for 80 days. Seinhorst yield model ($y= Y_{max}*(m+ (1-m)*0.95\^(Pi-T/Pi))$) was fitted to total fresh weight and root fresh weight data of all the three rose rootstocks. The tolerance limits (*T*) for total fresh weight was 0.04, 0.09 and 0.01 J2 per gram soil and a minimum yield (*m*) 0.65, 0.471 and 0.427 for *R. corymbifera* 'Laxa', R. *multiflora* and *R. canina*, respectively. Similarly, estimated tolerance limits for root fresh weight of *R. corymbifera* 'Laxa' was 0.09 J2 per gram soil and minimum yield was 0.58. In comparison, *R. multiflora and R. canina* showed a lower tolerance limit (*T*) of 0.011 J2 g^{-} soil and a minimum yield of 0.71 and 0.47, respectively. The reproductive factor (Pf/Pi) was higher at low initial nematode population densities for all rootstocks and then decreased to below maintenance level with increasing initial population density. Root gall severity consistently increased with initial nematode population density. Further, number of root-galling against final nematode population per gram root fresh weight showed a strong positive relationship. The relation between Pi and Pf was fitted to the Seinhorst population model ($Pf= (M * Pi)/ Pi + M/a$). *Rosa multiflora* supported best the population of *M. hapla* to a maximum population density of (*M*) 27.53 J2 g^{-} soil with an estimated average multiplication rate (*a*) of 24.39. The nematode For *R. corymbifera* 'Laxa' and *R. canina* the multiplication rate was 4.34 and 3.62 and the maximum population densities 6.08 and 4.78 J2 per g dry soil, respectively. Hence, it was demonstrated that all three rootstocks are sensitive to even low initial nematode densities and are excellent host for *M. hapla*.