

## **B15**

## Reaction of chickpea cultivars to bacterial wilt, a new disease to a crop under expansion in Brazil.

Rossato M<sup>1</sup>., Santiago T. R.<sup>1</sup>, Alves A. R.<sup>1</sup>, Carvalho I. C. B.<sup>1</sup>, Lopes C. A<sup>2</sup>

<sup>1</sup>Departament of Plant Pathology, Universidade de Brasília, Brazil; <sup>2</sup>Embrapa Hortaliças, Brazil<sup>2</sup>

## mauricio.rossato@unb.br

Chickpea (*Cicer arietinum* L.) is an annual grain legume used mainly as human food. It is well known as an inexpensive source of protein. In Brazil, chickpea's area increased from 800 ha in 2015 to 12,000 ha in 2019. The pathogen affects not only solanaceous plants, but also a wide host range. Since R. pseudosolanacearum was recently reported in chickpea in Brazil, the aim of this work is to provide information about resistance and susceptibility of the main chickpea cultivars cultivated in Brazil. An experiment was conducted including five chickpea cultivars (Cícero, Aleppo, Cristalino, Kalifa and Toro) and tomato – "Duradouro" cultivar (Solanum lycopersicum) as positive control and six R. solanacearum and R. pseudosolanacearum isolates. Each treatment consisted of sixteen plants sown in four 0.5 L plastic pots in three replicates. The seedlings were sprayed by a hand spray with a bacterial suspension calibrated to 10<sup>s</sup>UFC/mL and kept in a greenhouse (20 and 40°C). The factorial experiment was carried out in a complete randomized design. Descriptive statistics was conducted evaluating the total number of symptomatic plants. All isolates wilted a large amount of tomato seedlings. Isolates GB (R. pseudosolanacearum), originally from chickpea, showed a lesser capability of causing wilt in this host, suggesting a lack of co-evolution with this host. Others isolates, all R. solanacearum showed a higher virulence on chickpea, especially CNPH-RS476. Among chickpea cultivars, 'Cicero', the first chickpea cultivar available on Brazilian market, lacked resistance when compared to other cultivars tested. Kalifa, a recently released cultivar, was developed considering disease resistance, which was confirmed here with a lesser number of symptomatic plants, being the most recommended if the bacteria is present within the production area. This work also confirmed that not only Brazilian isolates of R. pseudosolanacearum but also R. solanacearum are capable of infecting chickpea cultivars.