Introduction

Sulla flexuosa (Hedysarum flexuosum L.) is a marginal plant used traditionally by farmers in the Northwest region of Morocco. These farmers can multiply this plant themselves in order to become self-sufficient in seeds. This work aimed to study the effect of different sowing rates on the seed yield and its components.

Materials and methods

The experiment was carried out in an experimental plot of the INRA regional centre of Tangier. Plants were sown at four seeding rates (15, 20, 25 or 30 kg/ha). A randomized complete block design with three replicates was adopted.

Results and discussion

The number of pods per infructescence and articles per pod, and the pod length were statistically similar for all seeding rates.

However, the number of infructescences per plant, the number of pods per plant, the weight of thousand seeds, the weight of hundred articles, and the weight of fifty pods were statistically similar with the two lower seeding rates (15 and 20 kg/ha), compared to the results obtained with the two higher seeding rates (25 and 30 kg) that presented lower values. The decreasing in pod numbers per plant could be due to competition between plants in high seeding rates. The seed weight per plant was heavier with a sowing rate of 20 kg/ha and lighter for the other densities.

Use of low seeding rates gave good seed yields which are economically interesting, since the weight of sulla thousand seeds is low; dehulling of sulla seeds being time-consuming.

Conclusion

This study showed that yield parameters were negatively influenced by the increase of the seeding rate. According to our experiment, a seeding rate of 20 kg/ha is the best one for obtaining higher seed yields.