



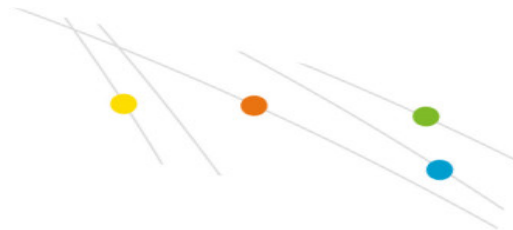
Potassium nitrate spray increased seed yield of grasspea

In India the effect of a foliar spray of potassium nitrate and calcium nitrate on a  
*paira*  
 crop of grasspea (

*Lathyrus sativus*

L.), grown in rainfed lowland rice fallows, was studied. Entisol soil, having 0,72% organic carbon, 22 kg available  $P_2O_5$ /ha and 240 kg available  $K_2O$ /ha with pH 6,2 was used. The experiment was a randomized block design with three replications. The foliar sprays of potassium nitrate and calcium nitrate were given at 3 concentrations, supplied equal amounts of N (as nitrate) in the respective treatments. The single foliar sprays were applied during the 50% flowering stage of the crop. All foliar sprays increased the yield attributes of grasspea (Table 1). The foliar spray of  $KNO_3$  at 0,50% increased the seed yield most, by 86% over the unsprayed control, averaged over two cropping seasons (Figure 1).

Table 1. Effect of foliar spray of  $KNO_3$  and  $Ca(NO_3)_2$  on yield attributes and average yield (1998-1999) of grasspea, grown as a  
*paira*  
 crop.



| Treatment                                  | Pods/<br>plant | Pod lenght<br>(cm) | Speeds<br>/pod | 1000 sed<br>weight (g) | Av. Seed<br>yield (t/ha) |
|--|----------------|--------------------|----------------|------------------------|--------------------------|
| Control                                    | 15,3           | 2,1                | 1,9            | 126                    | 0,49                     |
| Water                                      | 16,7           | 2,4                | 2,3            | 127                    | 0,51                     |
| KNO <sub>3</sub> (0,25%)                   | 18,7           | 2,9                | 3,3            | 135                    | 0,78                     |
| KNO <sub>3</sub> (0,50%)                   | 21,8           | 3,6                | 4,1            | 150                    | 0,91                     |
| KNO <sub>3</sub> (1,00%)                   | 19,8           | 3,2                | 3,8            | 142                    | 0,82                     |
| Ca(NO <sub>3</sub> ) <sub>2</sub> (0,203%) | 18,3           | 2,7                | 3,3            | 132                    | 0,74                     |
| Ca(NO <sub>3</sub> ) <sub>2</sub> (0,406%) | 19,9           | 3,4                | 3,9            | 143                    | 0,84                     |
| Ca(NO <sub>3</sub> ) <sub>2</sub> (0,812%) | 18,9           | 3,1                | 3,7            | 140                    | 0,79                     |
| LSD (P<0,05)                               | 0,99           | 0,45               | 0,23           | 1,12                   | 0,25                     |

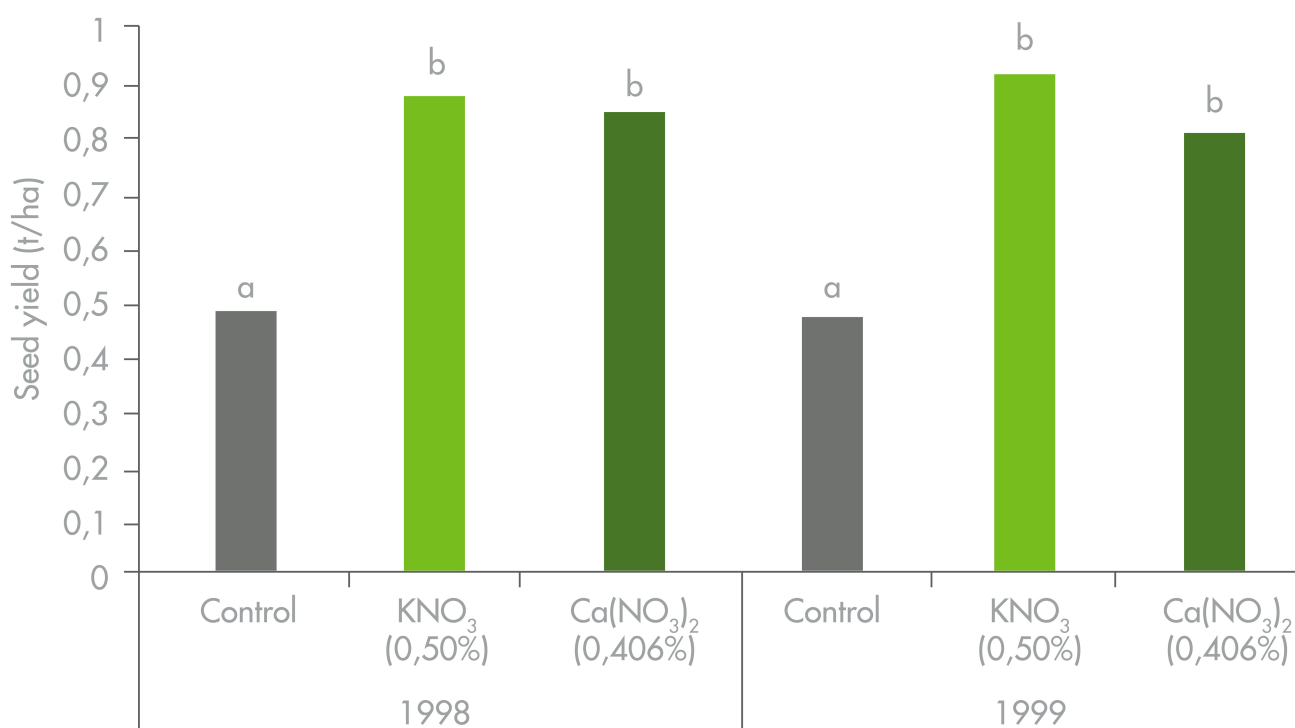


Figure 1. The effect of foliar treatments on the seed yield (t/ha) of grasspea in two growing seasons.

