The present investigation entitled, "Potassium nutrition of vegetable crop" was carried out for two consecutive seasons i.e. 1992-93 and 1993-94 at A.S. College Research Farm, Lakhaoti, Bulandshahr. The highlights of the investigation are summarised below:

Response to potassium:

(i) Potassium applied through SOP produced significantly higher yield of Onion bulbs as compared to MOP. There was a significant response of Onion Crop to levels of potassium. The optimum dose of K2O for Onion crop was 160 Kg/ha potash. The interaction effect of sources and levels of K on yield of Onion crop was not significant.

The highest yield of onion crop was obtained when the required quantity of potassium was applied in three splits i.e. one third basal, one third top dressing at one month, and one third top dressing at two months.

(ii) The nitrogen content of Onion crop increased significantly by the application of potassium up to 120 Kg/ha and decreased afterwards. SOP
significant in the case of vegetable crops. As large quantities of K are taken up by vegetables, fertilizers recommendations call for high rates of potash application. An intensive cultivation and fertilizers use, the form and methods in which the nutrients are applied needs special attention. For some vegetables crops, sulphate of potash (SOP) is the recommended form of K. SOP covers the sulphur requirements of the plants at the same time. SOP has a lower salt index than MOP and it is free of chloride, factors which are essential for intensive management with irrigation and for Cl sensitive crops.

As there is a lack of information regarding the sources as well as methods of application of potassium to be used for cultivation of vegetables, the present study was conducted on onion crop at A.S. College, Lakhauti Research farm with the following objectives:

1. To study the effect of different levels of potassium on nutrients content, quality and yield of onion crop.

2. To study the effect of different methods of application of potassium on nutrients content, quality and yield of onion.

3. To study the difference between sources of potassium as regards their effects on nutrients content, quality and yield of onion.
To study, the interaction effect between doses of potassium, methods of application and sources of potassium on nutrients content, quality and yield of onion crop.