



Potassium nitrate increased bud break and rooting of blackcurrant cuttings

In blackcurrant (

Ribes nigrum

L.) bud break is linked to rooting. Different treatments to break bud dormancy were applied to evaluate their influence on rooting. One-year-old shoots of cv Wellington were collected from 8 year old field grown bushes. Single bud cuttings, 25-30 mm long, were prepared from the middle region of each shoot. The cuttings were soaked in KNO_3 at three different concentrations of 0, 1 and 5% for one hour. The 5% KNO_3 treatment gave a more advanced stage of bud development and highest number of roots per cutting (Table 1). A one hour KNO_3 soaking period, when compared with two, four and eight hours gave an equal or a more advanced stage of bud development and a greater number of roots. In a comparison experiment between the effect of different nitrate salts (KNO_3 , $\text{Ca}(\text{NO}_3)_2$, $\text{Mg}(\text{NO}_3)_2$, NH_4NO_3 , NaNO_3 and $\text{Zn}(\text{NO}_3)_2$), KNO_3 gave results similar to the most advanced bud break and largest number of roots.

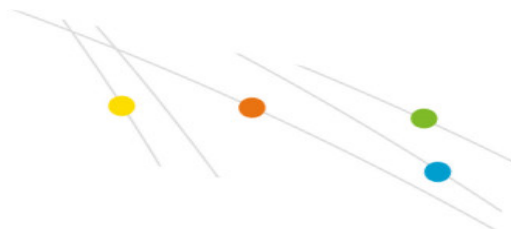


Table 1. Effect of soaking single bud cutting of blackcurrants in KNO_3 solutions. Assessments were made 40 days after treatment application.

Treatment	Stage of bud development*	Root number per cutting
0% KNO_3	0,47	0,22
1% KNO_3	1,10	2,38
5% KNO_3	2,20	4,30

* Bud development stages:

0 - bud dormant, no growth

1 - leaves beginning to emerge

2 - one fully expanded leaf visible

3 - two fully expanded leaves visible