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## Research Article

# Growth and Yield of Cultivar Atlantic Potato in Medium Altitude with Paclobutrazol Application and Different Amount of Watering

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## Abstract

**Objective:** The objective of this research was to study the growth and yield of Atlantic Potato cultivar grown in medium altitude areas with different amount of watering. **Methodology:** This study was conducted in search station of Agriculture Faculty of Padjadjaran University located in Jatinangor at the altitude of 685 m.a.s.l., at D3 rainfall rate in Inseptisol soil. A split plot design was used during the experiment. The main plot factor was using paclobutrazol at 3 different levels of concentrations (0, 50 and 100 ppm) and the second factor was watered at 4 different levels (100, 85, 70 and 55% water of field capacity). **Results:** The experiment result showed that applying 100 ppm of paclobutrazol could increase the tubers weight per plant, the starch content (12.50%) and reduce the sugar content (0.45%) for growing atlantic cultivar potato in medium altitude, however, it showed low height of the plants. The potato plants which were watered by 85% of field capacity showed the same height as ones watered by 100% while in other parameters low percentage of watering inhibited potato growth and its yield. **Conclusion:** Applying 100 ppm of paclobutrazol could increase the tubers weight per plant, starch content (12.50%) and reduced its sugar content (0.45%) other than that low percentage of watering inhibited potato yield for growing atlantic cultivar potato in medium altitude.

**Key words:** Medium altitude, paclobutrazol, potatoes, waterin

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**Competing Interest:** The authors have declared that no competing interest exists.

**Data Availability:** All relevant data are within the paper and its supporting information files.