

### **Supplementing organo-bio-stimulants into growing media improves growth, biochemical response, flower productivity and quality of lily bulbs**

Addition of organo-bio-stimulants may have major impact on biochemical attributes of growing media and flower productivity. The current study evaluated the response of lily bulbs for growth, some biochemical characteristics, and flowering quality to various growing media which included sand, clay, sand: clay (1:1 v/v), or sand: clay: compost (1:1:1 v/v) supplemented with Humicil and/or Power max. Results proved that the use of growing media led to significant differences in growth, flowering, and chemical component parameters of lily plants. However, there was superiority in these traits due to planting in a medium consisting of a mixture of sand: clay: compost (1:1:1 v/v), followed by sand: clay (1:1 v/v), then clay media. On contrast, planting in sand soil was coincided with a decrease in above-mentioned characteristics compared to the other media. The addition of various organo-bio-stimulants coincided with an improvement in growth, flowering and chemical component measurements. Moreover, adding the mixture of Humicil with Power max, followed by Power max alone showed the greatest effect on improving measurements. The combination between growing media and stimulants showed a significant difference in all measurements of plant growth, flowering and chemical components of lily plants. However, the highest values of these traits coincided with the combination between a mixture of sand: clay: compost (1:1:1 v/v) with the mixture of Humicil and Power max.