1,2,6-Trideoxy-6-amido-d-allose derivative was synthesized and found to exhibit higher growth-inhibitory activity against plants than the corresponding deoxy-d-allose ester, which indicates that an amide group at C-6 of the deoxy-d-allose amide enhances inhibitory activity. In addition, the mode of action of the deoxy-d-allose amide was significantly different from that of d-allose which inhibits gibberellin signaling. Co-addition of gibberellin GA_3 restored the growth of rice seedlings inhibited by the deoxy-d-allose amide, suggesting that it might inhibit biosynthesis of gibberellins in plants to induce growth inhibition.

New Plant growth regurator derived from rare sugar, d-allose.