

**Abstract:**

In horticultural practice, the forcing of flower bulbs may induce physiological disorders, which are usually not visible externally. The possibilities of magnetic resonance imaging (MRI) as a tool to detect such disorders induced by storage conditions have been assessed. With the use of T2-weighted images, water concentration maps and T1 and T2 maps, both bud abortion in Hippeastrum and tulip bulbs and water-soaking in lily bulbs could be detected and studied.