

Title Seed quality evaluation of flower species used in dried floral arrangements

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Abstract

The demand for seeds of flower species used in dried floral arrangements has increased in recent years in Croatia, especially among small growers. High quality seed and plant material are extremely important for commercial floriculture. Vigour, germination potential, seed purity, package content adjusted to package certificate in relation to individual species are essential features of flower production. The aim of the paper was to examine seed quality of the flower species traditionally used in dried floral arrangements, available on Croatian market in 2011. The quality was assessed by standard ISTA methods. Nineteen samples of seeds were studied in relation to vigour and germination potential, health condition, emergence rate in containers, time of flowering, length of flowering period, authenticity of certified species, plant height, inflorescence colour, length, height and width, optimal drying stage for inflorescence and fruit. The study was conducted on two samples of species *Amaranthus caudatus*, *Nigella damascene* and *Celosia argentea* var. *cristata*, four samples of species *Helichrysum bracteatum* and *Limonium sinuatum*, one sample of species *Celosia argentea* var. *plumosa*, *Ammobium alatum* and *Gomphrena globosa*, and finally two samples certified as dry flowers of mixed species. The poorest quality feature of all tested seeds was germination, ranging between 0 – 94 %. The commonest disease present was *Alternaria alternata*. All species were correctly certified, except one sample of the species *Celosia argentea* var. *cristata* and *Celosia argentea* var. *plumosa*. The study shows that Croatian flower market should be supplied by a higher quality seeds.