Effects of harvest weather on germination of Scottish wildflower seeds

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A new market has emerged in the United Kingdom for seeds of wild plants for projects to promote biodiversity, for the gardening market and for the growing interest in the wild plants as source of cosmetic and pharmaceutical products. However, for many species there has been little evaluation of seed quality. In 2003 a preliminary investigation was started to give an indication of the factors affecting quality. Germination testing was carried out initially on 120 species. The introduction of regular germination testing revealed low germination for seed lots of some species harvested in 2004. Seeds of many species harvested in August 2004, the main harvest month, had low germination levels compared to harvests from the same crop in 2003 and 2005. Harvest from crops which ripened before or after August in 2004 did not show this pattern. The low germination results appear to be related to the extremely high rainfall recorded in August 2004 which coincided with high amounts of cloud and very high humidity. This may have affected the development of seed for species which flowered and set seed during this period.