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Forage production in ski runs restored with indigenous seed mixtures

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Dry matter yield and potential forage quality (calculated on the basis of specific contribution and Klapp's forage value scores) of plant stands obtained through restoration of ski runs were measured in the course of the EU-research project ALPEROS, in order to investigate the suitability of revegetated areas for agricultural purposes in combination with low fertiliser input. At three different locations, one below the timberline (Sudelfeld, D, 1,245 m asl) and two near or above it (Hochwurzen, A, 1,830 m asl and Gerlos, A, 2,280 m asl), a commercial seed mixture (SM1) with lowland forage varieties bred for agricultural purposes was compared with an indigenous seed mixture (SM2) containing ecotypes of alpine and subalpine species. Dry matter yield decreased with increasing altitude and SM1 yielded higher dry matter levels at the sole location below the timberline in the first harvest year, while better performances of SM2 were initially observed at intermediate altitude. A slightly better potential forage quality was initially achieved by SM1 at two of the three locations, but, starting from the third growing season, differences between seed mixtures were no longer found. Results are discussed in relation to vegetation dynamics and changes of specific contribution through time.