The biogenetic relationship between wyerone, wyerol and the 11,12- dihyro analogues has been investigated. Labelled wyerone and dihydrowyerone were obtained by feeding sodium( 2-14C)acetate to CuCl2- induced V.faba cotyledons, and separation by HPLC. Some of the wyerone was used for semisynthesis of wyerol . the three title compounds were fed to induced bean cotyledons to establish any possible interconversion. incorporation data indicated a 0.45% conversion of wyerone into dihydrowyerone and 3.0% reversed conversion. The highest incorporation was 13.3% conversion of wyerol into wyerone, accompanied by a small conversion 0.15% of wyerol into dihydrowyerone. The results indicated that wyerone has been derived from wyerol, most probably, by oxidation.