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黄连木果实中油体的发育

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Development of Oil Bodies in the Fruit of *Pistacia chinensis*

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摘要

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摘要 黄连木(*Pistacia chinensis*)是一种重要的木本油料植物,其果实中贮存着大量的油脂,这些油脂分子主要存在于果皮、种皮和胚的油体中。在光学显微镜下观察发现,果皮中油的积累开始于果实发育晚期,果皮开始变红时;种皮中油体的发育开始于果实发育早期;胚中油体的发育开始于球形胚时期。透射电子显微镜观察结果显示,种皮和胚中的油体形成于内质网,而果皮中的油体则分别由内质网、质体和液泡形成。尼罗红荧光标记显示,内质网形成的油体始终以独立单元的形式存在。种皮和胚中也贮藏蛋白体,但发育晚于油体。果皮、种皮和子叶中都贮存少量的淀粉粒。

关键词: 发育 内质网 果实 油体 黄连木

Abstract: *Pistacia chinensis* is an important woody oil plant. We observed oil bodies in the pericarp, seed coat and cotyledon during fruit development of *P. chinensis* by optical microscopy and transmission electron microscopy. The oil content in the pericarp began to increase gradually when the fruit turned red. The oil in the seed coat accumulated in the early stage of fruit development. In the embryo, oil bodies first appeared in the globular embryo. Oil bodies appeared in the endoplasmic reticulum in seed coat and embryo. The oil in the pericarp originated from the endoplasmic reticulum, plastid and vacuole. The endoplasmic reticulum showed budded oil bodies. Nile red staining revealed oil bodies accumulated as small, separate units. Protein bodies were in the seed coat and embryo. The protein bodies developed later than oil bodies. A small amount of starch granules were found in the pericarp, seed coat and embryo.

Keywords: development endoplasmic reticulum fruit oil body *Pistacia chinensis*

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