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花椒和野花椒的无融合生殖

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摘要　花椒与野花椒的胚囊发育类型属寥型，成熟胚囊为卵器退化。花椒无雄花，不发生双受精，自发形成胚乳并产生珠心胚。野花椒虽有正常花粉。人工授粉后能萌发，但在花粉管长人胚囊之前卵器已解体，中央细胞中已形成胚乳游离核，因此也不发生双受精，由珠心细胞自发形成胚。这种现象是花椒和野花椒在长期进化过程中形成的一种十分特化的适应。

关键词　无融合生殖；珠心胚；花椒属

分类号

Apomixis in Zanfhoxylum bungeanum and Z. simulans

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Abstract

The process of apomixis in Zanthoxylum bungeanum and Z. siinulans has iieen describedin detail. Both species have the embryo sac of Polygonum type and the egg; apparatuses inthe mature embryo sacs appear disorganized. In Z. bungeanum, only pistillate flowers arefound in Beijing. The endosperm and the nucellar embryos develop autonomously withoutpollination and fertilization. A great number of pollen grains can be produced normally inthe male trees in Z；imulans. They also can germinate by artificial pollination. But whenthe pollen tubes reach the embryo sac, the egg apparatus has degenerated already and therehave been several free nuclei of Lhe endosperm in the central cell. Therefore, it also has theautonomous endosperm and nucellar embryos in Z. simulans. Such autonomous apomixis inZanthoxylum is a very specialized form not only in the Rutaceae but also among the an梦ospermswhich have nucellar embryony.

Key words　Apomixis；Nucellar embryos；Zanthoxylum

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