云南农业大学学报(自然科学)
JOURNAL OF YUNNAN AGRICULTURAL UNIVERSITY (NATURAL SCIENCE)
ISSN 1004-390X
CODEN YNDXAX
CN 53-1044/S
主办：云南农业大学

云南农业大学学报(自然科学) » 2011, Vol. 26 » Issue (4) :560-567 DOI:

苜蓿雌性不育发生机制及其分子调控研究进展

兰州大学 草地农业科技学院，甘肃 兰州730020

Advances in the Developmental Mechanisms and Molecular Regulation of Female Sterility in Alfalfa

School of Pastoral Agriculture Science and Technology, Lanzhou University, Lanzhou 730020, China

摘要 紫花苜蓿(Medicago sativa L.)的雌性育性特征与种子产量密切相关，苜蓿实际种子产量较潜在种子产量低与其较高的雌性不育现象有关。本文就苜蓿雌配子体发生和胚胎发育过程中雌性不育类型、遗传机制及其分子调控研究进展进行了综述，主要包括雌性不育的类型、雌性不育发生的细胞学机理和遗传机制以及基因定位，最后对苜蓿雌性不育研究面临的问题进行了探讨，以期为进一步增加苜蓿种子产量提供理论依据。

关键词： 紫花苜蓿 雌配子体发育 胚珠 雌性不育

Abstract： Characteristics of female fertility in alfalfa (Medicago sativa L.) is closely related to seed yield. The realized seed yield of alfalfa is much lower than that of potential seed yield, which is mainly caused by the high percentage of female sterility. In this paper, the progresses of cytological mechanisms of female gametophyte and embryo development, types of female sterility, genetic control of female sterility and female sterile genes mapping have been reviewed. The problems in the studies of the female sterility were discussed and the knowledge provided here will be useful in increasing the seed production of this important perennial legume forages.

Keywords： alfalfa；ovule；female gametogenesis；female sterility

Fund:

国家“973”计划项目（2007CB108904）；兰州大学中央高校基本科研业务费专项资金（lzujbky-2010-1）

引用本文:

张静文，金樑，冯光辉，张树振，王晓娟**.苜蓿雌性不育发生机制及其分子调控研究进展[J] 云南农业大学学报(自然科学), 2011,V26(4): 560-567

ZHANG Jing-wen，JIN Liang，FENG Guang-hui，ZHANG Shu-zhen，WANG Xiao-juan.Advances in the Developmental Mechanisms and Molecular Regulation of Female Sterility in Alfalfa[J] Journal of Yunnan Agricultural University, 2011,V26(4): 560-567