PLANT NUTRITION AND FERT

ISSN 1008-505X
CN 11-3996/S

植物营养与肥料学报 » 2009, Vol. 15 » Issue (6) :1413-1418 DOI:

施肥对不同品种苜蓿生产力及土壤肥力的影响

韩清芳， 周芳，贾珺, 贾志宽*， 聂俊峰

西北农林科技大学干旱半干旱农业研究中心，农业部旱地作物生产与生态重点开放实验室，陕西杨陵712100

Effect of fertilization on productivity different producing performance alfalfa varieties and soil fertility

HAN Qing-fang, ZHOU Fang, JIA Jun, JIA Zhi-kuan*, NIE Jun-feng*

The Arid and Semi-arid Areas Agriculture Research Center，Key Laboratory of Crop Production and Ecology, Minister of Agriculture, the People's Republic of China / Northwest A & F University, Yangling, Shaanxi 712100, China

摘要 | 参考文献 | 相关文章

Download: PDF (220KB) HTML 0KB Export: BibTeX or EndNote (RIS) Supporting Info

摘要

研究了不同施肥处理对生长7年的3个紫花苜蓿品种的产量及土壤养分的影响。结果表明，NP配施和单施K肥对苜蓿均有显著的增产效果，不同施肥对不同品种的生产力影响效果不同。$N_{30}P_{120}$处理巨人201+Z和牧歌401+Z产量最高，分别比对照增产41.1%和74.8%；单施K_{60}处理，路宝比对照增产了76.7%。种植苜蓿可以提高土壤氮的有效性，生长7年的苜蓿根系固氮在土壤仍有累积。种植苜蓿，不施肥处理土壤全氮含量均有不同程度增加，而土壤全磷和全钾略有下降。随磷肥用量的增加而增加，$N_{30}P_{120}$处理土壤速效磷增加11.45～41.7 mg/kg；单施钾肥，土壤速效磷含量提高了3.71～4.41 mg/kg，全钾含量增加了0.06～1.69 mg/kg。

关键词： 施肥 紫花苜蓿品种 土壤肥力 干草产量 施肥 紫花苜蓿品种 土壤肥力 干草产量

Abstract:

The report studied the effects of different fertilizer treatments on the growth of the 7th years-old of 3 different production performance alfalfa（*Medicago sativa*） varieties, as well as changes in soil nutrients. The results showed: NP combined application and K fertilization alone can significantly increase the yield of all different alfalfa varieties. Different fertilization shows different impact on the productivity of different varieties. When applied $N_{30}P_{120}$, the highest forage production was obtained for both *Ameri Stand* 201+Z and *Ameri Graze* 401+Z reached, increasing 41.1% and 74.8% more than that of non-fertilizer respectively. When applied K_{60}, *Lobo* will gain the largest production increase (76.7%). Planting alfalfa can improve the soil N availability, and it is accumulated in soil that the nitrogen was firmed by roots of the 7th years-old alfalfa (sentence is not clear). The soil N content of non-fertilization increases with alfalfa planting, but total P、total K in soil decreased. The impacts of fertilization on soil fertility are different with different alfalfa varieties planting. The soil available P content increases with increases of P fertilization. Applying K alone can raise the soil available P content (3.71–4.41 mg/kg) and total K content (0.06–1.69 mg/kg).

Keywords:

Received 2008-10-13;

Service

- 把本文推荐给朋友
- 加入我的书架
- 加入引用管理器
- Email Alert
- RSS

作者相关文章

引用本文:

韩清芳， 周芳，贾珺, 贾志宽*， 聂俊峰.施肥对不同品种苜蓿生产力及土壤肥力的影响[J] 植物营养与肥料学报, 2009,V15(6): 1413-1418

HAN Qing-fang, ZHOU Fang, JIA Jun, JIA Zhi-kuan*, NIE Jun-feng.Effect of fertilization on productivity different producing performance alfalfa varieties and soil fertility
[J] Acta Metallurgica Sinica, 2009,V15(6): 1413-1418