

野茉莉与茶间作对茶树叶片组织结构及产量的影响

徐梦寒¹ 顾楚然¹ 许晓岗^{1*} 童丽丽² 戴韦¹ 李思颖¹

(1. 南京林业大学南方现代林业协同创新中心, 南京林业大学生命科学学院, 江苏南京, 210037; 2. 金陵科技学院 园艺园林学院, 江苏南京, 210038)

摘 要: 茶是一种多年生常绿灌木型作物, 是一种耐阴、耐酸、喜湿、好温的树种。国家发表的“十四五规划”中期望茶树种植面积及产量能得到提高, 行业内对如何提高茶叶的产量及品质投入了诸多精力。现如今, 单一茶园的种植模式对茶叶产量和品质的提升已经达到了饱和值。因此, 采用茶林间作的种植模式对其进行优化尤为重要, 通过茶林间作可以调节茶园中的光照、温湿度等情况, 改善茶园小环境。

本文选用野茉莉与茶间作, 其一是因为野茉莉的盛花期与茶叶最佳生长采摘季节一致; 其二是因为野茉莉作为安息香科的广布种, 所具有的挥发物含有天然的杀菌成分(主要为安息香树酯挥发物), 能够保护茶叶鲜叶, 有效防治病虫害; 其三是因为茶叶具有吸附性, 两者间作能够使成茶带有野茉莉的香气。

在本实验中, 探究了野茉莉与茶在不同间植密度及不同间植坡度这两个维度上的生态环境指标、茶叶产量指标及病虫害情况, 对成茶进行审评, 通过比较与分析后得出结论。主要研究结果如下:

①高密度间植野茉莉能够降低周边温度、提升茶园湿度, 改善茶园区域小环境, 减轻病虫害的发生, 提高茶叶的口感和品质, 增加茶芽密度, 提升产量。

②适当栽培地缓坡(15°)能够有效锁住土壤水分, 提高土壤湿度、降低土壤温度, 降低茶叶发病率, 从而对茶叶产量及品质提升具有积极影响。

本文旨在通过对不同样地栽培环境的对比, 找到更适合茶叶生长发育的种植模式, 为其他类似产业提供借鉴意义。

关键词: 野茉莉; 茶; 茶林间作; 叶片产量; 安息香科

Effects of Intercropping between *Styrax japonicus* and tea on leaf tissue structure and Tea production

Abstract: Tea is a perennial evergreen shrub type crop, which is a shade-tolerant, acid-tolerant, moisture-loving, and temperature-loving tree species. The "14th Five-Year Plan" issued by the state expects that the planting area and yield of tea trees can be increased, and the industry has invested a lot of energy in how to improve the yield and quality of tea. Nowadays, the planting mode of a single tea garden has reached a saturation value for the improvement of tea yield and quality. Therefore, it is particularly important to optimize the planting mode of tea forest intercropping, which can adjust the light, temperature and humidity in the tea garden and improve the small environment of the tea garden.

In this paper, *Styrax japonicus* and tea are intercropped, one of which is because the peak flowering period of *Styrax japonicus* is the best season for tea growth and picking; The second is that *Styrax japonicus*, as a widely distributed species of Styracaceae, has volatiles containing natural fungicidal components (mainly Styracaceae volatiles) to protect fresh tea leaves and effectively control pests and diseases; T

he third is because the tea has adsorption, which can make the resulting tea with the aroma of *Styrax japonicus*.

In this paper, the ecological environment indexes, tea yield indexes, diseases and pests of *Styrax japonicus* and tea in different interplanting densities and different interplanting slopes were explored through experiments, and the tea formation was reviewed, and the conclusions were drawn after comparison and analysis. The main findings are as follows:

① High-density interplanted *Styrax japonicus* can reduce the surrounding temperature, increase the humidity of the tea garden, improve the small environment of the tea garden, reduce the occurrence of pests and diseases, improve the taste and quality of tea, increase the density of tea buds, and increase the yield.

② The gentle slope (15°) of proper cultivation site can effectively lock in soil moisture, increase soil moisture, reduce soil temperature, and reduce the incidence of tea, which has a positive impact on the improvement of tea yield and quality.

The purpose of this paper is to find a more suitable planting mode for the growth and development of tea through the comparison of different cultivation environments, and to provide reference for other similar industries.

Keywords: *Styrax japonicus*; Tea; Intercropping; Tea production; Styracaceae