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烟草和烟气化学

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浓香型烤烟中性致香成分及多酚含量与香气质量 的关系研究 , 浓香型烤烟中性致香成分及多酚含量与香气质量 的关系研究

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Research on relationship between neutral aroma constituents and polyphenol material content and concentration and aroma quality of strong aroma type flue-cured tobacco, Research on relationship between neutral aroma constituents and polyphenol material content and concentration and aroma quality of strong aroma type flue-cured tobacco

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摘要

以国内浓香型主产烟区的284份烤烟C3F为材料,采用偏相关分析、通径分析及逐步回归的分析方法,研究了浓香型烤烟中性致香成分及多酚含量与香气质量的关系。结果表明:中性致香物质和多酚类物质各指标对香气量、香气质的直接影响均不同;(1)香气质受6-甲基-5-庚烯-2-酮和绿原酸的直接正面影响最大,而受茄酮的直接负面影响最大,同时莨菪亭对其也有负面影响;(2)香气量受2-乙酰基吡咯和绿原酸的直接正面影响最大,而受苯乙醇的直接负面影响最大;(3)苯乙醛、糠醛、新植二烯、二氢猕猴桃内酯、巨豆三烯酮1、绿原酸、芸香苷对香气质和香气量均有直接正面影响;茄酮和藏花醛对香气质和香气量均有直接负面影响。因此,可通过调节调制条件提高中性致香物质和多酚物质中对香气质量有益成分,控制和降低对其不利的成分,改善其烟叶内在质量。以国内浓香型主产烟区的284份烤烟C3F为材料,采用偏相关分析、通径分析及逐步回归的分析方法,研究了浓香型烤烟中性致香成分及多酚含量与香气质量的关系。结果表明:中性致香物质和多酚类物质各指标对香气量、香气质的直接影响均不同;(1)香气质受6-甲基-5-庚烯-2-酮和绿原酸的直接正面影响最大,而受茄酮的直接负面影响最大,同时莨菪亭对其也有负面影响;(2)香气量受2-乙酰基吡咯和绿原酸的直接正面影响最大,而受苯乙醇的直接负面影响最大;(3)苯乙醛、糠醛、新植二烯、二氢猕猴桃内酯、巨豆三烯酮1、绿原酸、芸香苷对香气质和香气量均有直接正面影响;茄酮和藏花醛对香气质和香气量均有直接负面影响。因此,可通过调节调制条件提高中性致香物质和多酚物质中对香气质量有益成分,控制和降低对其不利的成分,改善其烟叶内在质量。

关键词: 浓香型烤烟 中性致香成分 多酚 香气质 香气量 通径分析 浓香型烤烟 中性致香成分 多酚 香气质 香气量 通径分析

Abstract:

Taking 284 strong aroma type flue-cured tobacco leave ranked C3F in China as samples to investigate the relationship between neutral aroma constituents and polyphenol material content and concentration and quality of aroma by analytical methods of partial correlation analysis, path analysis and stepwise regression. (1) The quality of aroma was directly positive influenced by 6-methyl-5-heptene-2-ketone and chlorogenic acid greatly, and was directly negative influenced by solanone greatly, and it was negative influenced by scopoletin; (2) The concentration of aroma was directly positive influenced by 2 - acetyl pyrrole and chlorogenic acid greatly, and was direct negative influenced by phenethyl alcohol greatly;(3) The quality and concentration of aroma were directly positive influenced by hyacinthin, furfural, neophytadiene, dihydroactinidiolide, Megastigmatrienone, chlorogenic acid, rutin; and were directly negative influenced by solanone and safranal. Therefore, adjusting the curing conditions could increase the composition in neutral aroma constituents and polyphenol material which were beneficial for the quality and concentration of aroma, control and decrease the harmful composition,

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and then improve the interior quality of tobacco leave., Taking 284 strong aroma type flue-cured tobacco leave ranked C3F in China as samples to investigate the relationship between neutral aroma constituents and polyphenol material content and concentration and quality of aroma by analytical methods of partial correlation analysis, path analysis and stepwise regression. (1) The quality of aroma was directly positive influenced by 6-methyl-5-heptene-2-ketone and chlorogenic acid greatly, and was directly negative influenced by solanone greatly, and it was negative influenced by scopoletin; (2) The concentration of aroma was directly positive influenced by 2 - acetyl pyrrole and chlorogenic acid greatly, and was direct negative influenced by phenethyl alcohol greatly;(3) The quality and concentration of aroma were directly positive influenced by hyacinthin, furfural, neophytadiene, dihydroactinidiolide, Megastigmatrienone, chlorogenic acid, rutin; and were directly negative influenced by solanone and safranal. Therefore, adjusting the curing conditions could increase the composition in neutral aroma constituents and polyphenol material which were beneficial for the quality and concentration of aroma, control and decrease the harmful composition, and then improve the interior quality of tobacco leave.

Key words: aroma type flue-cured tobacco neutral aroma constituents polyphenol material quality of aroma concentration of aroma path analysis aroma type flue-cured tobacco neutral aroma constituents polyphenol material quality of aroma concentration of aroma path analysis

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- [1] 许美玲, 贺晓辉, 宋玉川, 刘勇, 李梅云, 樊有银, 李永平. 72份雪茄烟种质资源的鉴定评价和聚类分析[J]. 中国烟草学报, 2017, 23(5): 59-76.
- [2] 孙德坡, 王昆森, 赵伟, 申钦鹏, 何沛, 刘东辉, 唐白文, 刘恩芬, 陈永宽, 刘志华. 造纸法再造烟叶工艺流程中5种多酚的变化[J]. 中国烟草学报, 2015, 21(4): 29-33.
- [3] 黄波, 龙颖, 李东阳. 茶多酚二甲基亚砷合剂对卷烟烟气遗传毒性的防护作用[J]. 中国烟草学报, 2015, 21(2): 100-104.
- [4] 于宏晓. 主流烟气氨释放量与烟叶中蛋白质和氨基酸含量相关性研究[J]. 中国烟草学报, 2014, 20(3): 23-29.
- [5] 席元肖 宋纪真 杨军. 不同颜色及成熟度烤烟类胡萝卜素和多酚含量的差异分析及与香型风格的关系[J]. 中国烟草学报, 2011, 17(4): 0-0.
- [6] 马剑雄¹, 张强², 欧阳文², 董高峰², 周桂圆³
- . 美国引进烤烟品种NC297和NC102的香韵特征分析美引烤烟品种的香韵特征分析* [J]. 中国烟草学报, 2010, 16(7): 22-.
- [7] 李文卿¹, 陈顺辉², 李春俭³, 柯玉琴⁴. 不同施氮水平对烤后烟叶中性致香物质含量的影响[J]. 中国烟草学报, 2010, 16(6): 14-.
- [8] 许自成, 郑 聆, 李东亮, 等. 烤烟糖含量与多酚、有机酸含量的变异特点及关系分析 [J]. 中国烟草学报, 2010, 16(4): 9-.
- [9] 王毅, 钟楚, 陈宗瑜, 等. UV-B辐射对烟草叶片总多酚含量和PPO活性的影响[J]. 中国烟草学报, 2010, 16(1): 49-.
- [10] 于建军, 董高峰, 杨寒文, 马海燕. 四川会理烟区烤烟矿质元素含量与评吸结果的关系分析[J]. 中国烟草学报, 2009, 15(6): 36-.
- [11] 韩富根¹, 沈掇². 施氮量对烤烟经济性状、化学成分及香气质量的影响[J]. 中国烟草学报, 2009, 15(5): 38-.
- [12] 过伟民¹, 张骏², 刘阳¹, 宋纪真¹, 魏春阳¹, 李玉娥¹, 尹启生¹. 烤烟质体色素及多酚与外观质量关系研究[J]. 中国烟草学报, 2009, 15(2): 33-.
- [13] 刘芳, 杨柳, 孙林, 张震, 缪明明, 丁中涛. ASE-超高效液相色谱法快速测定烟草中的多酚类物质 [J]. 中国烟草学报, 2008, 14(6): 1-.
- [14] 赵铭钦, 陈红华, 陈秋会, 李富强. 不同陈化条件下烤烟多酚类物质的动态变化及其与化学成分的相关分析[J]. 中国烟草学报, 2007, 13(4): 16-18,30.
- [15] 徐晓燕, 武丽, 张烽林, 李章海. 植物生长调节剂对烤烟内源激素、烟碱、多酚含量的影响[J]. 中国烟草学报, 2007, 13(3): 61-63.

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