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	米一直為亞洲地區的主要糧食,亦是主要澱粉來源之一。但不同米種所含營養及機能性成分不盡相同。不同中,會增加許多內部活性物質,包括抗氧化物、γ?胺基丁酸(GABA)、IP6 及肌醇(inositol)等,許多研究皆認		

• 中文摘要

米一直爲亞洲地區的主要糧食,亦是主要澱粉來源之一。但不同米種所含營養及機能性成分不盡相同。不同米種在浸置過程中,會增加許多內部活性物質,包括抗氧化物、γ?胺基丁酸(GABA)、IP6 及肌醇(inositol)等,許多研究皆認爲米在發芽後其營養價值亦較易消化吸收。另一方面,刺五加莖和根中曾被分離出七種配醣體(刺五加甘,elentheroside),亦含有多醣體(polysaccharide)和異黄酮(isoflavonoid)、芝麻脂素(sesamin)、維生素 A、B1、B2、C 及微量礦物質。本計畫預將不同米種之紫米、紅米、發芽米之米汁(rice juice)結合刺五加開發成爲多重機能性飲品、功能性飲品與沖調飲品等高附加價值之產品,並分別進行營養成分分析及功能性分析(如抗氧化活性等),以供應目前市場對機能性健康飲品需求。
 結果顯示,刺五加、紫米、紅米與發芽米萃取物對腫瘤細胞皆具有抑制生長的作用;亦可抑制 H2O2 誘導的正常細胞之抗氧化作用,但單純給予刺五加、紫米、紅米與發芽米萃取物則對細胞沒有任何影響;亦具有延緩 LPS(lipopolysaccharide)所誘導的發炎反應,但對正常細胞則皆無影響,顯示刺五加、紫米、紅米與發芽米萃取物並不影響一般生理作用。但在飲品試製上發現,刺五加建議有效劑量約爲 1430mg/300ml/day,約爲人體攝取量 0.46mg/ml,但官能品評後風味並不佳,將降低劑量至 0.23mg/ml。此外,合併品評亦發現,刺五加+紫米之風味爲優於刺五加+紅米,又更優於刺五加+發芽米。因此在試製相關飲品上,將採用刺五加 0.23mg/ml,搭配紫米 0.1mg/ml。

• 英文摘要

Rice is an important food crop and most of the Asians, is also a major source of starch. Different kinds of rice species contained in the nutritional and functional ingredients vary. After the soaking process will increase the number of internal active composition,

including antioxidants, y-amino butyric acid (GABA), IP6 and inositol (inositol) and so on, many researchers point to the rice after the germination would be easily digestion and absorption of nutritional value than trading. On the other hand, stems and roots of the Acanthopanax senticosu, there are seven kinds of elentheroside, polysaccharide, isoflavonoid, sesamin, vitamin A, B1, B2, C and trace amount of mineral compounds have been found, indicated that both Acanthopanax senticosu and germinated rice are rich of nutrients and good for human being. To develop multi-functional and high value-added beverages, we plan to use the Taiwan's local purple rice, red rice, brown rice species by special germination treatment to made the rice juice (Rice Juice) and combine with the extract of Acanthopanax senticosu. After that, we will perform the nutrient analysis and functional analysis, such as antioxidant activity analysis, to confirm the function of the products. We will promote the multi-functional and high value-added beverages to the market. < BR > & nbsp; & nbsp; & nbsp; The results showed that Acanthopanax senticosu, purple rice, red rice and germinated rice extracts on tumor cells inhibit the growth of both the role; also inhibited H2O2-induced normal cells of the anti-oxidant effect, but only to give the Acanthopanax senticosu, purple rice, red rice and & nbsp; germinated brown rice extracts have none effect on cells; it also has delayed LPS (lipopolysaccharide)-induced inflammatory response, but had none effect on normal cells, while both show Acanthopanax senticosu, purple rice, red rice and germinated brown rice extracts does not affect the normal physiological functions. However, in drinks found on trial, The recommended dose of Acanthopanax senticosu is 1430mg/300ml/day, about the human body intake 0.46mg/ml, but after the sensory evaluation the flavor is poor, so would be reduce the dose to 0.23mg / ml. In addition, the merger tasting also found that the flavor of Acanthopanax senticosu plus purple rice is better than Acanthopanax senticosu plus red rice. Therefore, the beverages major formula, will be used Acanthopanax senticosu 0.23mg/ml added purple rice 0.1mg/ml. < BR >