

毛豆果莢質量性狀的遺傳研究

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摘要：本研究由89年春作調查的資料及秋作已完成調查的資料進行分析。在莢果色澤的研究方面，綠光等30個品種為材料分別以分光光度計Hitachi U-2000及SPAD-502葉綠素計測度R6期莢果及不同節位葉片的色澤變化，以建立適切的分析方法。結果顯示以663nm(毛豆莢殼最大吸收波長)測度吸光值再依Amon式計算所得葉綠素含量與以葉綠素計所測葉綠素含量有高度正相關(相關值達0.9283)。不同節位葉片與莢果青翠色澤的相關探討顯示，由頂向下計算第三節位與莢果葉綠素含量相關最高為0.9064。葉片及莢果的葉綠素含量在30個參試品種間均呈顯著的差異。此顯示莢果翠綠的特性可藉助葉綠素計對葉片的測定行間接選拔，當可獲致良好的選拔效果。

試驗另以Stable-microsystems的Texture analyzer TA-IHD-100質地儀測度毛豆莢仁剖面質地(Texture Profile Analysis)之擠壓力(Extrusion)及黏著力(Adhesion)，以探討毛豆口感特性。結果顯示兩個變數在品種間均顯示有品種的差異。脆硬度方面以雪之下為最高，FTC值為5.22kN，次為KVS844(5.21kN)、KVS862(5.17kN)，最低為丹波(3.41kN)及KVS836(3.45kN)。黏著力以群鶴最高為1.26kN，次為KVS836(1.23kN)，最低為雪之下(0.87kN)及KVS832(0.89kN)。兩性狀與實際的食用口感(煮熟後的品味試驗)關係的聯係，及其與其他農藝性狀間的探討，需待品味試驗、秋作產量性狀的調查完成後再探討分析。

關鍵詞：毛豆、每莢粒數、莢飽滿度、裂莢性

Genetic Studies on Pod of Quality and Total Yield of Edible Soybean

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Abstract: The purpose of this study was to investigate the pod and leaf color of thirty edible soybean varieties, with using chlorophyll meter (SPAD-502) and spectrophotometer (Hitachi U-2000). Texture and pod-shattering trait was measure using the FTC shear press and the standard shear-compression cell. Physical and rheological properties of edible soybean (texture, color, and yield strength) are functions of time of development. Thus quality, which depends on the above properties, may be controlled in part by selecting the proper harvest time. The pod color and FTC texture reading at the optimum value can be determined and used as a criterion for selecting quality. Measurements of pod color and texture are easy and the instruments are readily available.

Key words : Edible soybean, Kernel number per pod, Fullness degree of pod, Pod-shattering trait.