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摘要： 通过对136份夏大豆种质资源的12项农艺性状及产量性状进行综合分析与评价，筛选出适宜西南地区的夏大豆种质。结果表明：参试品种农型性状的变异系数为6.30%~47.06%，说明参试种质资源有着比较丰富的表型多样性。通过对12项性状的相关分析表明，单株粒重与有效分枝数、主茎节数、单株荚数、每荚粒数、营养生长期和生育期呈极显著正相关，与最低分枝高度呈极显著负相关。对产量和其他性状进行多元线性逐步回归表明，单株荚数、每荚粒数、百粒重和最低分枝高度可以解释89.9%的因变量变异。通径分析表明，每荚粒数对产量的直接正效应最大，最低分枝高度的直接作用和综合作用均表现为负，综合效应排列次序为：单株荚数>每荚粒数>百粒重>最低分枝高。利用主成分分析可以提取出3个主成分来反映这12项性状指标的信息，累计贡献率达65.08%。根据主成分得分并借助权重计算的综合得分把136份大豆品种聚类成4类，其中第Ⅰ类的8个大豆材料表现为株高较高、底荚较高、最低分枝高较低、主茎节数较多、单株荚数和每荚粒数较多、百粒重较小，生育期较长，适宜作为西南地区的育种材料。

Abstract: Appropriate germplasm in Southwest China were selected from 136 summer soybean materials, by comprehensive analysis and evaluation on 12 agronomic and yield traits. The results showed that the coefficient of variation in phenotypic traits was between 6.30% and 44.07%, which illustrated that genetic diversity of morphological traits was relatively rich. Correlation analysis showed that the seed weight per plant had significant positive correlated with effective branch number, nodes of main stem, pods per plant, seeds per pod, vegetative period and growth period, and significant negative correlated with height of the lowest branches. Multiple linear stepwise regression showed that pods number per plant, seed number per pod, 100-seed weight and height of the lowest branch could explained 89.9% of the variation of the dependent variables. Path analysis indicated that seeds per pod displayed the highest positive direct effect, and the lowest branch height displayed negatively direct effect and comprehensive effect. The comprehensive effect of 4 traits to yield was ranked in order of pods per plant > seeds per pod > 100-seed weight > the lowest branch height. Principal component analysis showed that three independent comprehensive components were extracted from 12 traits, which reflected 65.08% information. According to composite score calculated from principal component and index weight 136 soybean materials were clustered into four types. Eight soybean materials of class I, which had higher plant height and bottom pod height, lower lowest branch height, more nodes number, higher pods per plant and seeds per pod, smaller 100-seed weight, longer growth period, was suitable for breeding materials in Southwest China.

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