

CROPPING, BREEDING AND THE POTENTIAL OF COWPEA IN BRAZIL

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Cowpea is a crop of African origin, which was introduced in Brazil in the second half of the sixteenth century by Portuguese colonizers in the State of Bahia, therefrom spreading throughout the country. It is known by a large number of popular names, among them cowpea, feijão macássa (black-eyed pea), and feijão-de-corda (black-eyed beans). Crops concentrate in the North and Northeast, but start spreading to the Midwest. Considering the average total beans production in the country (common bean + cowpea) for the period from 2005 to 2009, cowpea accounted for 37.53% of the harvested area, namely 15.48% of total production, with a productivity approaching 42.20% of national productivity. During this period, cowpea crops generated an average of 1,113,109 jobs per year, providing food supply to as many as 28,205,327 people and generating an annual production value of R\$ 684,825,333 reals. With regard to commercial classes of grain, the predominant subclasses include Mulato (Brown Beans), Branco Liso (White Navy Beans), Branco Rugoso (variety of Cannellini beans), Canapu (Canapu Cowpea) and Sempre-verde (Ever Green Beans). It is estimated that Brazil has a permanent shortage in the supply of cowpea around 82,000 t. Worldwide, Africa accounts for 86.75% of total planted area, and 86.5% of cowpea crops. America accounts for 11.85% and 10.39% of the total area and crops, respectively. Asia and Europe contribute small percentages. Nigeria and Niger are the biggest growers, both in Africa and worldwide; Brazil is the biggest grower in the America and the world's third biggest grower, whilst Myanmar has the Asia's biggest crop. The genetic improvement of cowpea must probably have started in 1925. Since early 2009, only 68 improved cultivars appeared. Cultivars cropped between 1991 and 2009 in the Northern region showed an average yield of 1,100.5 kg/ha; in the Northeast region, 1,088.5 kg/ha; in the Midwest region, 1,265.2 kg/ha; and in the Southeast region, 1,503.6 kg/ha. The last eight cultivars cropped had an average protein content of 24.0%, 61.3 mg.kg⁻¹ iron content, 44.7 mg.kg⁻¹ zinc content, and a cooking time of 18'26''. BBRS Xiquexique cultivar and BRS Tumucumaque cultivar stand out with the highest content of both elements. Therefore, cowpea has, both in terms of production and in nutritional quality, a significant current and strategic nutritional potential.