

BIOTECHNOLOGY IN BRAZIL - CONSIDERATIONS ABOUT HUMAN RESOURCES FORMATION

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In Brazil the application of biotechnology, as well as, the development of new techniques and processes began at the end of last century. Researchers and Research Institutes began to study and develop research mainly in applied microbiology. Aside from improved understanding of the biological and engineering principles, external factors have led to the recent emergence of biotechnology. In Brazil these included the opportunities to use low-cost organic substrates, e.g. forestry residues, agricultural wastes and food industries wastewaters, in favor of petroleum-based feedstocks. World markets for biotechnological products are projected to be on the order of hundreds of billions of dollars by the end of the century. In Brazil, the program of alcohol production began in 1975 and its results are very interesting. Recently in 1984 an important Symposium in Biotechnology realized at FAPESP (Foundation to help research in the state of São Paulo) with the contribution of DCET (Science and Technology Department), and based on results obtained by ACIESP (Sciences Academy in the State of São Paulo) tried to recommend the politics to development of Biotechnology in the State of São Paulo. In terms of graduate courses the ACIESP data from 25 departments related to the subject, only 13 are enrolled, but there are no program, especially devoted to Biotechnology. This work presents the existing courses, the curricula of three of them and the relationship between Brazil and some countries that are members of OEA (American State Organization) whose students are enrolled in these graduate programs, related to biotechnology.