



Amino Acids Production from Date Wastes by Fermentation

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Since the 1950s when *Corynebacterium glutamicum* was discovered, the production of amino acids by fermentative methods has become an important aspect of industrial amino acids production. With the exploitation of new uses and the growing markets of amino acids, amino acid production technology has made large progress during the latter half of the 20th century. Fermentation technology has played crucial roles in this progress, and currently the fermented amino acids represent chief products of biotechnology in both volume and value. This area is highly competitive in the world market and process economics are of primary importance. The world market was estimated at around 3 billion USD in 1996. The annual world production of amino acid has increased year by year, and is currently estimated at 2 million metric tons. The major problems regarding raw materials for amino acid fermentation involve carbon sources which serve in the biosynthesis of the structural frames for amino acids and also as energy sources for microorganisms. Since the cost of a carbon source accounts for most of raw materials, its selection is of primary importance. As the main source of carbon, cane molasses, beet molasses, and starch hydrolysates (glucose) from corn and cassava are widely used for the industrial production of amino acids. The amino acids amount imported to our country is considerable, so annually millions of dollars are extruded from the country. We can produce amino acids in country considering high volume of carbon sources that remain from agriculture wastes, with good management. Economically, this subject prevents the extrusion of dollars from country and generates more opportunity for employment. At this study the possibility of amino acids production from date waste was investigated. The results show that date wastes are good substrate for amino acids production by fermentation.

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