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## **SUGAR BEET PULP PRODUCTION UNDER GMP (GOOD MANUFACTURING PRACTICE) CONDITIONS IN BELGIUM.**

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Following the more and more strict requirements asked for the agro-food industries, the partners of both sugar beet and sugar Belgian sectors, and in particular the Confederation of the Belgian Beet Growers (CBB) and the Association of Belgian Sugar Manufacturers (SUBEL) decided, on October 5th 1999, to develop a system of "Integral Chain Quality Management" (ICQM). The general principals are self-control and certification. The ICQM system will be applied to all the links of the production chain from the sugar beet farmers and their suppliers, to trade, transport and transformers of plant raw materials. All fluxes of inputs are concerned. On its side, as a first step, the sugar industry has spread its existing quality assurance (ISO/HACCP) to the by-products by developing a descriptive card system for each by-product guaranteeing the quality of its various by-products. The integration between the descriptive by-product card and the ISO/HACCP procedure is also stated as GMP-equal (Good Manufacturing Practice). The descriptive by-product card relative to the sugar beet pulp (wet, pressed and dried beet pulp) is common to all sugar factories of Belgium. The GMP card consists of two parts : a general part recalls the legal, interprofessional and inside factory requirements, the indicative composition, the guarantees of transport and delivery, the instructions for storage and use. A second part presents a detailed description of the production process and the risk analysis. Inventoried risks include security, quality and environment. Minimal monitoring and control measures are described. The second step in the quality system is to have a full GMP certificate for the animal feed production (Good Manufacturing/Managing Practice). Some sugar factories in Belgium already obtained a full GMP certification of the animal feed products beet pulp and beet molasses. These GMP certified producers can use the GMP quality label.