

Application of a Clustering Based Location-Routing Model to a Real Agri-food Supply Chain Redesign

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Abstract/Résumé : The supply planning of agricultural products and in particular perishable products is a critical issue in the supply chain management field due to high safety and quality risks associated with the delays in the products delivery. This work is concerned with the planning of a real agri-food supply chain for poultry products. More precisely the problem is to redesign the existing supply chain and to optimize the distribution planning. To this aim a clustering-based location-routing model is applied in a sequential manner. Furthermore, environmental costs of road transportation in terms of CO₂ emissions are taken into account in the computations. The proposed integrated approach permits to minimise the total costs of the agri-food supply chain not only in terms of economy but also in terms of ecology.

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