

RECP Best Practices Catalogue

*Recovery of proteins and fats from animal
fleshing*

Developed within the framework of MED TEST II



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION



The SwitchMed Programme is
funded by the European Union

Best Practice - Recovery of proteins and fats from animal fleshing

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|----------------------|---------------------------------|
| SECTOR: | Leather |
| BRANCH: | Tanning and dressing of leather |
| CATEGORY | Process control or modification |
| APPLICABILITY | Process |
| COMPANY SIZE | 40 Full-time employees |



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Description of the Problem (Base Scenario):

Large quantities of fleshings are produced daily at the plant following the fleshing operation. The amount discarded is estimated at 100 tons.

Description of the Solution:

The installation of a fleshings processing unit will allow:

- produce proteins to recover them as fertiliser (if there is such a market), or the proteins can be recovered during the tanning process, by supplementation during the re-tanning phase. In this case, Italian studies have shown that the depletion of chromium and dye used in re-tanning-dyeing increases by approximately 4-5%
- Produce fats that can be sold to the soap industry.



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Economic Gains

Recovery of separated fats and proteins for the market, about 10%

- The annual quantity sold is about 10 tons of fat and protein since the remaining 90 tons will be cooked in acid and diluted in water.
- Which amounts to: $10,000 \text{ kg} \times € 1.2 = € 12,000$

Environmental Gains

- Reduction of fleshings waste landfilling of about 100 tons/year.
- 100% of the fleshings waste will be recovered.

Health and Safety Impact



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|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Capital Investments & Financial Indicators | Investment to acquire recovery and heating tanks and a centrifuge to separate fat and proteins: € 20,000 Unit installation: € 4,000 Investment: € 24,000 Time for Return on Investment: 2 years |
| Supplier Information | Local |
| Other Aspects | none |
| Implementation | The company has started an implementation study. |



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