



CLEANER PRODUCTION

> CASE STUDY

Joe's
POULTRY
PROCESSORS

**JOE'S POULTRY
PROCESSORS**

SUMMARY

Implementing a broad range of initiatives has brought Joe's Poultry financial gains as well as significant environmental benefits. Electricity usage has been reduced by 16%, natural gas usage by 15% and water usage by 8.8 kL per day.

Total savings: \$54,000 with an overall payback period of less than 4 months.



Environment Protection Agency
Government of South Australia





> Large blood collection tray

JOE'S POULTRY PROCESSORS

Business Profile

Joe's Poultry ranks as the largest family owned and managed poultry processor in SA. The company has expanded its product line to include high quality cooked, smoked and ready to eat poultry to add to the many traditional dressed lines. The company employs 90 people, and Joe's Smoked Poultry is the number one selling product of its type in SA, with growing exports to China.

Financial assistance provided

Advanced EnviroSafe Consultants carried out the consultancy study with a grant of \$15,000 provided by the EPA's Cleaner Industries Demonstration Scheme.

Measures implemented

Housekeeping, equipment changes, reducing water usage, water recycling and energy reduction.

Cleaner production motivators

- Increase productivity through better housekeeping, processing and equipment changes, and improved layout.
- Minimise the generation of wastewater and improve its quality.
- Eliminate current dependence on other poultry processors by developing vertical integration from growing to product, together with internal management of generated wastes.
- Improve competitiveness.

TRADITIONAL APPROACH

- Approx 20 L water consumed per bird processed.
- Approx 35 L per minute wasted overflow water from the scalders.
- Offal, feather and blood disposal cost \$500 per week.



CLEANER PRODUCTION INITIATIVES >

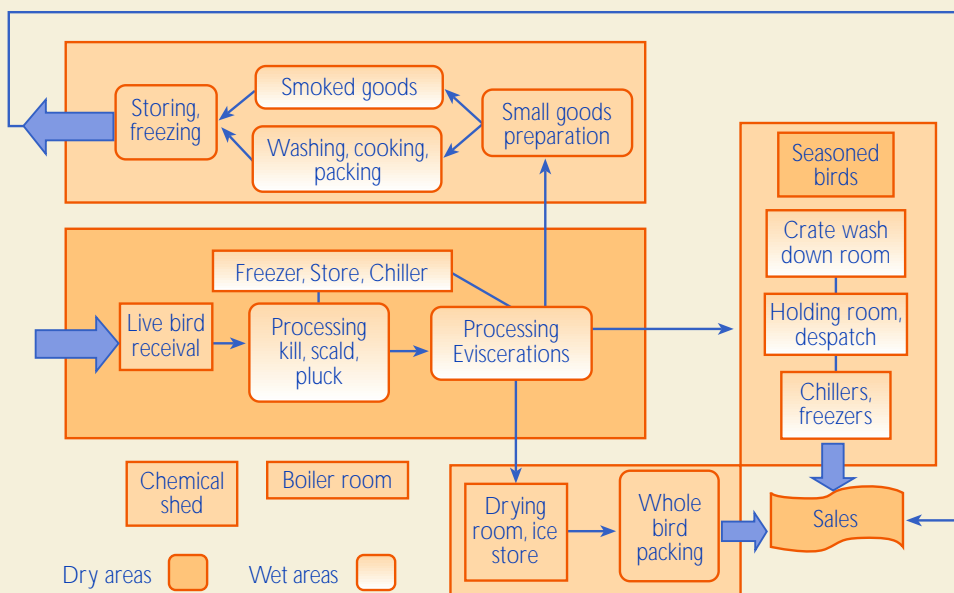
Benefits recommended and implemented

Increased bird live weight

Birds with a greater live weight are now processed and, because water and electricity is used on a per bird basis, this reduced consumption of these resources for the same weight of final product.

BENEFITS >

| | |
|-------------------|--|
| ENVIRONMENTAL | |
| Water | • Reduction in water consumption. |
| ECONOMIC | |
| Savings, outcomes | • Electricity consumption decreased per kg outcomes dressed weight by 16% and natural gas decreased by 15%. Total savings: \$25,792 per annum. |
| Investment | • Nil |

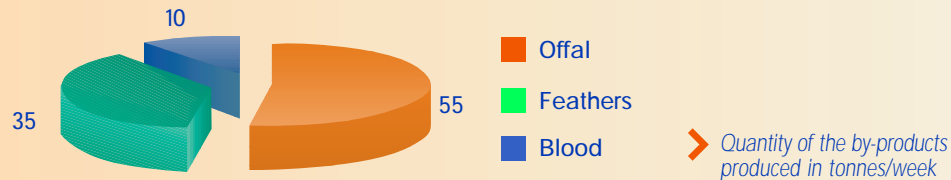


> Figure 1. Process flow diagram, schematic plant layout



IMPROVED BLOOD AND OFFAL QUALITY >

The by-products of feathers, offal and blood had been of poor quality and were collected by Inghams Enterprises for by-products conversion at a charge of \$500 per week. The feathers, offal and blood are now screened and collected separately and, because the new equipment has significantly improved by-product quality, Joe's Poultry are longer charged for collection.



BENEFITS >

ENVIRONMENTAL

- | | |
|-----------|--|
| Waste | <ul style="list-style-type: none"> Minimised volume and improved quality of wastewater being disposed. |
| Resources | <ul style="list-style-type: none"> Better management of resources. Better housekeeping measures improved quality of the offal, feathers and blood. |

ECONOMIC

- | | |
|-------------------|---|
| Savings, outcomes | <ul style="list-style-type: none"> Weekly charges of \$500 for waste disposal cancelled. Annual savings: \$26,000. |
| Investment | <ul style="list-style-type: none"> \$2000. |
| Payback | <ul style="list-style-type: none"> 4 weeks. |

New scalding outlet weir design

A new design of the outlet weir on the scalding minimised water drag over from the bird exit.

BENEFITS >

ENVIRONMENTAL

- | | |
|-------|--|
| Water | <ul style="list-style-type: none"> Reduced volume of water carried over with each bird. Water wastage reduced by 55%. |
|-------|--|

ECONOMIC

- | | |
|-------------------|--|
| Savings, outcomes | <ul style="list-style-type: none"> Daily saving of 8.8 kL provides annual saving of \$2100. |
| Investment | <ul style="list-style-type: none"> \$600. |
| Payback | <ul style="list-style-type: none"> 3.5 months. |

WHERE TO FIND ADDITIONAL INFORMATION >

Mr Michael Pirone
 Joe's Poultry Processors
 27 Ridgeway Rd
 Elizabeth West SA 5113

Ph: (08) 8252 2599



Environment Protection Agency
 Government of South Australia

