

Organic Farm Saves Money with an Efficiency Check

In each EffCheck, used resources are considered across environmental media and in a process-oriented way, in order to reveal efficiency potentials in material and energy use and to reduce the emergence of waste and wastewater.

Description of the case study:

An organic farm in western Germany used the EffCheck program to discover saving potentials in their business.

Hof Hahlgarten

Founded: 1960 Employees: 13

Hof Hahlgarten is a farm nestled in an idyllic location between the Rhine and Lahn rivers, west of the small town of Frücht. It is one of several Bioland agricultural mixed farms, which produce organically following Bioland guidelines. Hof Hahlgarten distinguishes itself from conventional agricultural holdings through the philosophy of organic agriculture and management according to nature.

The Weinig family started with a dairy farm in 1960 and built a versatile and particularly sustainable mixed farm over the years. This was only possible by protecting the soil, water, species and animals with organic agricultural and rearing methods.

Since 2001, Hof Hahlgarten follows Bioland guidelines. Their core specialties are livestock breeding and milk production in addition to the organic production of beef, pork, mutton and poultry. The cozy farm shop is always worth a visit. There, customers can buy meat, sausage, preserves, soups, eggs, grains, bread, field vegetables and flowers, all from Hof Hahlgarten.

"Working in harmony with nature and preserving biological diversity is crucial to us. EffCheck helped us accomplish this."

- Siblings Ulrike and Martin Weinig, owners

Saving potentials identified through EffCheck

(1) Measure (2) Investment in € (3) Cost savings in €/year (4) Amortisation

(1) Reduction of electricity use of the butcher's shop, the cooling system and lighting (2) ca. 14,000 (3) 3,900 (4) ca. 4 years

(1) Self-generation of electricity with a photovoltaic installation (2) ca. 30,500 (3) ca. 4,700 (4) ca. 7 years

(1) Reduction of fuel consumption through organizational measures (2) 0 (3) ca. 4.600 (4) immediate

EffCheck Results

Example 1: Saving Potential in the Butcher's Shop

An analysis of energy use in the butcher's shop revealed that the biggest energy users were the electric stove and the brewing kettle. A significant reduction of operating costs can be reached through the use of a gas stove with a gas bottle service (there is no natural gas connection). In order to ensure an economic use of the brewing kettle, the water content of the boiler system will be reduced and the opening times of the lid will be controlled.

Example 2: Reduction of Fuel Consumption

A reduction of fuel consumption of up to 30% is possible, mainly through organizational measures. These include:

- Selecting tractors based on the power requirements of the work to be done
- Regular maintenance of tractors
- Working as much as possible in a rotational speed between 1300 and 1700 rpm
- Adapting tyre pressure to the street or field
- Dismounting dead freight for light pulling tasks
- Adapting the driving speed to motor performance and the optimal rotational speed
- Driving continuously variable transmission in petrol saving mode
- Adapting gear to slope when driving
- Driving at a high gear and shifting only when speed adapted to next higher gear.

EffCheck – Consistently comprehensive

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Project Theme:

Cost savings in an organic farm through an EffCheck.

Project Implementation:

Hof Hahlgarten

Weinig GbR

Hof Hahlgarten

56132 Frücht

Telefon 02603/3840

weinig-fruecht@t-online.de [1]

Contact:

PIUS-Internet-Portal

c/o Effizienz-Agentur NRW

Henning H. Sittel

Tel. 0203 378 79 51

E-Mail: info@pius-info.de [2]

Green Eco Net

c/o Ecologic-Institut gGmbH

Dr. Martin Hirschnitz-Garbers

Tel. 030 86880 272

E-Mail: martin.hirschnitz-garbers@ecologic.eu [3]

Source in german: EffNet <http://www.pius-info.de/dokumente/download/1919/> [4]

What was the type of green solution? Please select the type of solution.:

Technology/Product [5]

What does the featured solution contribute to?:

Resource efficiency

Which technology area(s) does the case study belong to?:

Resource efficiency [6]

Would you characterize the green solution as:

Medium capital intensive investment (i.e. €10,000-€30,000)

Source URL: <http://greeneconet.eu/organic-farm-saves-money-efficiency-check>

Links

[1] <mailto:weinig-fruecht@t-online.de>

[2] <mailto:info@pius-info.de>

[3] <mailto:martin.hirschnitz-garbers@ecologic.eu>

[4] <http://www.pius-info.de/dokumente/download/1919/>

[5] <http://greeneconet.eu/type-green-solution/technologyproduct>

[6] <http://greeneconet.eu/technology-area/resource-efficiency>