



Info-package 1

Farmers/Irrigators

Fact Sheet 1.1 – Implications of using reclaimed water to obtain labels such as global gap.

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Effects of reclaimed water on crop quality and yield

Irrigation equipment adapted to the use of reclaimed water (e.g. drippers)

Decision support systems to monitor irrigation patterns and fertilization needs

Using reclaimed water in organic farming

SUWANU EUROPE is a H2020 project aiming to promote the effective exchange of knowledge, experience and skills among practitioners and relevant actors on the use of reclaimed water in agriculture. This factsheet is part of a total of 5 factsheets in Info-package 1 aimed at farmers and irrigators, that describe the certification and labelling schema in which water reuse has to fit in.

1. Introduction:

Consumers worldwide are increasingly demanding quality foods that are produced safely and sustainably. Food Industry and Retailers around the world are rising to meet the challenge by demanding the implementation of good agricultural practices, including food safety, from their producers. In some cases, especially in the case of emerging and/or small-scale producers, meeting this demand can be difficult because Food Industry and Retailers have limited sourcing possibilities, since producers in emerging markets may not yet formally comply with food safety, natural resources management - soil and water in particular - and good agricultural production requirements, or may be unable to achieve an integrated farm assurance (IFA) certification immediately. Farmers/Producers, meanwhile, face the challenges of accessing local and regional markets without any compliance with standards or certification for their products. Reclaimed water use introduction on farming best practices has several implications on certification and on labelling for food industry, retailers and end consumers.

2. Reclaimed water use best practices for public acceptance, and their certification and labelling:

Discussions on the role of wastewater reclamation and reuse in terms of planning, implementation, information, certification and labelling started in the beginning of the nineties (Water Sci Technol (1991) 23 (10-12): 2049–2059). Major water reuse categories were identified and discussed. The emphasis was on wastewater reuse in the context of the water supply benefits to water resources management and producers/consumers information and warning giving overriding importance to inform and protect public health and to mitigate health risks.

Use of reclaimed water requires a clear definition of the quality of water required, and while water quality criteria typically focus on pathogen risk to human health, chemical contaminants may also limit suitability for some reuse applications. Both waterborne illnesses transmission along the food chain and environmental risk assessments are considered important steps in all the food certification standards.

Certifications and labels were considered one of the main references to increase trust and public consensus according to the surveys carried out by interviews. There was a high general acceptance of the reuse of water in the irrigation of food and feed crops was perceived, but much lower when destined to the production of fresh food. Despite the fact that the EU DG Health in its guidelines had defined treated water as a low-risk water source for irrigation.

3. Certification, Labelling and the farm assurance standards (IFA):

The certification audits are a key building block for producers who need the integrated farm assurance and related certification to access demanding markets. With this tool, buyers are able to increase their sourcing possibilities by developing a network of reliable producers already linked to a common standard (IFA). The ultimate intention is to progress towards strict control of irrigation water quality on the farm level.



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4. The GlobalG.A.P. experience:

GlobalG.A.P. - a private association of worldwide private membership - is the most widely accepted private sector food safety certification in the world. With more than 700 certified products and over 200,000 certified producers in more than 135 countries, Global g.a.p. has a sound foundation that is both solid enough to build trust, integrity and flexible enough to spur innovation and reputation: it works with more than 2,000 trained inspectors and auditors working for around 159 accredited certification bodies to perform independent third-party producer audits and issue international certificates. Global g.a.p. has a pioneering integrity system with independent assessments to monitor the performance of the certification bodies. It has also a secure online certification database that customers can use to check producers and validate certificates. Global g.a.p. has an extensive worldwide network of consultants to help producers with their certification process. Water quality in the food production processes from farm to fork has always been on Global g.a.p. focus: producers have to certify the quality of irrigation water by sampling and analysis repeated during the cropping season. Recently Global g.a.p. has launched its Spring certification product, offering standards and audit schemas for irrigation.

5. Certification and labels on feed and processed crops:

The Crops for Processing (CfP) Standard covers crops that are slated to be frozen, juiced, used to make pre-cooked meals, and used for animal feed, among other types of processing. These crops will be held to the same standard as IFA crops, with the exception of two differences: the risk-based approach to food safety - also concerning irrigation and water use and reuse - and the auditing rules. Raw farm produces destined for processing implies different risks at the farm-level and therefore the CfP Standard approaches food safety risk assessment at the farm-level differently. The CfP also differs in that it is a non-accredited standard. Producers shall perform either self-assessments or internal inspections and QMS audits or receive inspections/audits by an approved Certification Body. Self-assessments and third-party assessments will both require the completion of the Overview of Farming Operations questionnaire, implying also soil and water management practices.

The Feed manufacturing standard (FMS) and the compound feed manufacturing standard (CFM) define the control points and compliance criteria for quality assurance in the production, supply and purchase of raw materials and feed ingredients for compound feed. It covers all the production steps from the growing, purchase, handling and storage to the processing and distribution of feed. The standard covers commercial compound feed and not home-mixed feed, given that home-mixed feed does not leave the farm it is produced on. Producers who prepare home mixes must follow criteria already outlined in the Livestock or Aquaculture standard and do not require additional certification against CFM. Feed manufacturers who supply certified producers must be certified against the CFM standard.

Reference/further readings

https://urlsand.esvalabs.com/?u=https%3A%2F%2Fwww.globalgap.org%2Fuk_en%2Ffor-producers%2Fglobalg.a.p.%2Fcoc%2F&e=0b30d690&h=e6c75116&f=y&p=y
<https://urlsand.esvalabs.com/?u=https%3A%2F%2Fiwaponline.com%2Fws%2Farticle%2F4%2F3%2F13%2F25902%2FWashroom-behaviour-and-users-perceptions-of-novel&e=0b30d690&h=63cb2acc&f=y&p=y>
<https://urlsand.esvalabs.com/?u=https%3A%2F%2Fiwaponline.com%2Fwst%2Farticle%2F23%2F10-12%2F2049%2F23995%2FThe-Role-of-Wastewater-Reclamation-and-Reuse-in&e=0b30d690&h=c8955c3b&f=y&p=y>
<https://urlsand.esvalabs.com/?u=https%3A%2F%2Fiwaponline.com%2Fwqrj%2Farticle%2F39%2F1%2F1%2F39871%2FA-Review-of-Water-Reuse-and-Recycling-with&e=0b30d690&h=f4e29ed0&f=y&p=y>
<https://urlsand.esvalabs.com/?u=https%3A%2F%2Fonlinelibrary.wiley.com%2Fdoi%2Fabs%2F10.2175%2F106143009X425898&e=0b30d690&h=610bb1af&f=y&p=y>

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