

# Industrial washing in Organic Farming

*It's importance in adhering to HACCP Guidelines*

As the organic farming movement continues to grow, the systems used in producing the healthy soils needed to grow crops and plants play a vital role. While conventional farming has its standards, the organic farming industry is heavily regulated; stringent protocols are in place to ensure organic, healthy practices. One of the integral parts of this system is the washing and storage of organic produce. As pathogens that are damaging to plants, such as an imbalance of nematodes, are dealt with at the soil level, identifying and correcting of issues such as contamination by listeria and other bacteria harmful to pregnant women and populations with compromised immune systems can be effectively dealt with at the washing stage. Companies equipped to provide industrial washing mechanisms and methodology that complies with standards and practices can be a valuable resource to the organic farmer.

Equally important is increased consumer awareness of harmful chemical residues from pesticides. While organic farmers are keenly aware of hazards caused by soil borne pathogens that can wipeout an entire season's work, consumers are also concerned with



the detrimental health effects of pesticides. Post-harvest, one of the most important tools in removing

contaminants from produce is the washing process. Identifying potential hazards is an important aspect

of the guidelines set forth by the Hazard Analysis Critical Control Point system, an internationally recognized set of principles. The first step in this system is the assembling of a team with knowledge specific to the handling and washing process of organic produce. Team members should be well-versed in HACCP guidelines and be able to identify potential chemical and microbiological contamination.

With Farm-to-Table operations leading the locally-grown movement, farms are selling directly to consumers in increasing



numbers. This creates the demand for the industrial washing industry to provide services that deliver safe and secure produce. Consumers now want the full experience of purchasing their own produce, and the knowledge of how that produce is grown and handled is important to them. Solutions to effectively eradicate biological and chemical hazards in the agriculture industry can be found in the production and design of industrial washers that comply with the standards of the HACCP system. Such is the case with bin-and-vat washers that service the apple industry. Industrial washing machines can be modified and customized to service any handling and washing needs the organic farmer may have.

An increasing number of organic farms are looking for ways to monetize their operations beyond the conventional markets: grocery stores, restaurants and hotels. Community Supported Agriculture, or CSA, involves the consumer, in essence, buying into

the farm operation and receiving fresh and seasonal produce on a weekly basis. Some farms go so far as to allow the consumer to harvest their own crops. With this in mind, organic farms equipped with modern washing equipment would have the advantage over conventional growers.

With daily news reports of microbiological outbreaks, such as Salmonella, E. coli and Listeria, industrial



washing systems have never been more important to the organic farming industry. Farmers have peace

of mind knowing they are delivering a product free of contaminants and are abiding by stringent hygienic and sanitary practices as those set forth by the HACCP Alliance. For instance, bubbling washers, a standard in the industrial washing industry, work by continual motion of the water to cause mushroom, fruit and vegetables to float, washing the produce uniformly without damage. These are often used in restaurant kitchen settings where time and labor can be allocated elsewhere. For the organic farmer, having a washing system in place not only deals with the inherent hazards, but saves time, money and resources.

Among the myriad of decisions the organic farmer must make, they include those which support the certification process. Integral to that process is the handling and washing of their harvest. Industrial washing companies can provide not only the know-how, but the equipment to reinforce the entire

process from planting to market. Hazard analysis is done by using CCPs, or Critical Control Points, that identify hazardous situations and take corrective action, as in the case of microbiological outbreaks of Salmonella. At this stage, the industrial washing industry is a key component.

During the food production chain, ensuring every effort is made to avoid contamination after harvesting, either microbiological or chemical, is a key principle. This guiding principle supports the role of organic farming and the role of producing crops which are free of harmful chemicals and microbiological pathogens that are harmful to humans. Furthermore, should an outbreak occur during the chain, inspectors can trace it to a specific farm. The CCP system can be employed to identify the source of the outbreak; corrective measures can then be taken. With a washing system in place, these outbreaks can be minimized.

In addition to the washing process, other factors such as allowable cleaning solutions and storage are factors. Typically, hydrogen peroxide, peracetic acid and other synthetic cleansers prevent an organic farm from calling their produce 100% Organic. The



exception being chlorine which must be used at acceptable levels. Storage containers from grocery

stores cannot be reused as transportation on trucks and further handling into the store and onto display

increases the chances of contamination. Storage containers used in organic farming should be washed with the same care as the produce itself. This includes the use of chlorine, vinegar from an organic source, and isopropyl alcohol. Containers must then be rinsed free of all cleaning solutions as not to come into contact with the organic produce.

Companies that specialize in the manufacture of washing systems for settings that demand hygienic conditions such as hospitals are a good start. One such company, Rhima, [www.rhima.com.au](http://www.rhima.com.au), based out of Braeside, Victoria, provides services that organic farming operations need to meet washing demands. The company specializes in the washing field and offers support and knowledge that organic farms will find invaluable. The certification process for organic farms is demanding. However, industrial washing companies can provide the support to deal with the washing aspect of the operation and ensure that the high standards of the certification process are met.