



*Towards a sustainable production  
and supply chain for stone fruit*

## **AFTER-LIFE COMMUNICATION PLAN**

**The problem:** In Europe, methods for **residue-free** production for vegetables and herbaceous crops are relatively widespread and demanded by the retail sector as well as the food processing sector. However, this method was not widely applied to **stone fruit** production even though consumers' nutritional habits are changing. This LIFE project developed a method for "**Zero Residue**" (ZR) **production** for stone fruit, which was then applied to all steps in the supply chain in order to **produce, preserve and commercialize** these residue-free fruits.



### **How is this done?**

- ❖ Development of the **ZR production method** for stone fruit by **rationalizing** the use of phytosanitary products and implementing production, harvest and selection of post-harvest **innovative technologies**. This process is then **certified as ZR** with a Third-party audit.
- ❖ **Low impact post-harvest preservation** by Active Modified Atmosphere Packaging (AMAP), Controlled Atmosphere in the cold chamber (CA) and in pallets (Palliflex).
- ❖ ZR fruit as **input for baby food** production to **reduce waste**.
- ❖ Continuous evaluation of **quality** and ZR product **shelf-life**.
- ❖ Supermarket **promotion** and evaluation of **consumer perception**.

### **What does 'Zero Residues' mean?**

The term '**Zero Residue**' (ZR) refers to an agricultural method that produces commodities with phytosanitary product residue levels below a certain analytical threshold detected as **MRL < 0,01 ppm**.

The ZR method is based on responsible and rational pesticide, fertilizer and natural pest management in order to obtain an innocuous final product.

This method differs from organic agriculture which only allows the use of natural fertilizers and biopesticides.



Main benefits and results of the LIFE Zero Residues project

**Improvements in many environmental aspects**

- Decrease in pesticide use
- Decrease in soil degradation
- Avoid groundwater contamination
- Reduce food loss

**Increase in shelf life of the harvested fruit**

- New microperforated packaging
- Selection of optimal conservation conditions for each fruit
- Organoleptic properties are preserved longer

**Creating a new trend for healthier fruit production**

- Production of 5 residue-free, healthier stone fruit varieties with **high organoleptic quality** at a more **competitive price**
- Development of a new product suitable for **baby food** industry made from peach, nectarine and flat peach pulps

**Results**

- ZR methodology enabling the abandonment of persistent pesticides and thus allowing it being **certified as 100% ZR**.
- An **increase in shelf-life** by up to 7 days was recorded and trials proved an **improvement in quality and taste** of the produce, resulting in 25% of all consumers are willing to pay higher prices for ZR products.
- The methodology also satisfies requirements for **residue-free certification**, giving superior commercial assets for marketing and baby food industry.

|            | AMAP | CA  | PALLIFLEX |
|------------|------|-----|-----------|
| Flat Peach | ●    | ●   | ●         |
| Nectarine  | ●    | +7d | ●         |
| Apricot    | ●    | +5d | +2d       |
| Peach      | ●    | X   | +1d       |
| Cherry     | ●    | +5d |           |

Quality parameters measured include firmness, organoleptic analyses, damages to the fruit and the presence of unexpected aromas (life period).

Positive effect  
 No benefits  
 Negative effect







**Through the AFTER-LIFE Communication Plan**, project partners will disseminate and communicate the results of **Zero Residues** during at least the following 5 years, thereby continuing applying more sustainable agricultural practices beyond the end of the project. To this purpose, several actions are expected to be carried out at regional, national and European level following three pillars: Inform, Involve & Inspire.

### **Inform**

- Disseminate the projects' purpose, aims and outputs to reach a broader audience, outside the project boundaries.

- Encourage new stakeholders to adopt zero residues farming practices into their agricultural fields and continue with the **Zero Residues** initiatives.

### **Involve**

- Contribute to policy deliberation at all governmental levels in order to help make greening practices a top priority in the European agenda.

- Keep key stakeholders updated via **Zero Residues** communication channels and activities and encourage local communities.

### **Inspire**

- Empower stakeholders to become involved in spreading the project message by providing them with the right communication tools, messages and support.

- Engage interested parties in committing to reducing use of chemicals and minimizing food waste by "leading by example".



**Beyond the boundaries of the project**, the Consortium has established a strong network of interested parties and farmers that are committed to continuing with Zero Residue practices in their areas as well as disseminating and communicating the **sustainable management** implemented in the fields and in the post-harvest technologies applied. Along with the conclusions of the socioeconomic impact assessment and the Technical Evaluation report, these results show a positive interest from potential supermarkets that are interested in offering Zero Residues products. Furthermore, the **Layman's report** presented at the Final Conference, have been made available for all partners to distribute among their networks. These will also be sent together with the Conclusions report to a large number of stakeholders in Spain and the EU and are available online on the project website.



## General aspects for future activities are based on:

- ✓ **Impact** on environment (especially carbon footprint) and health
- ✓ **Replicability** in new regions and climates
- ✓ **Transferability** by adopting methodology among new cultivars
- ✓ Analyzing the **market potential** by investigating trends and demands
- ✓ Include **policy relevance** by envisaging new law restrictions in phytosanitary products and MRL exigencies



## Examples of future After-Life activities

### Motivating stakeholders to replicate ZR method and enhancing consumer awareness

Transfer will **inform** on the **market potential** of the products, showing up the consumers perception and demands. UNIZAR and PCTAD will continue presenting the new products suitable for baby food industry made from peach, nectarine and flat peach pulps.

### Exploiting the method's replicability

**Replicability** will be further implemented in new regions and climates. For pre-harvest technologies this is being undertaken by the cooperation between Seipasa and Zerya with the support of Finca Valleluz and for post-harvest technologies by Top BV with the support of Lafuente Tomey.

### Fostering liaisons for transferability with diverse stakeholders and end-users

Zerya is now exploring the **transferability** with three national agricultural companies which are very willing to implement the methodology in their crops. These companies are: berries producers in Huelva, cooperatives of table olives in Sevilla, and a nectarine producer in Extremadura.

### Garnering press attention

Ongoing contacts with the press resulted in various **press, radio and TV interviews and articles**. After closing of the project, Transfer will continue with these efforts during coming years. All partners will continue presenting the project results in conferences and seminars.

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### **Coordinating Beneficiary:**

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### **Associated Beneficiaries:**

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