

# Requirements for the stone fruit certification programme in Spain

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In 1977, an agreement between the Institute National de Investigaciones Agrarias (INIA) and the Institute Nacional de Semillas y Plantas de Vivero (INSPV) was signed for the expressed purpose of selection, reproduction, and control of fruit materials by the Fruit Department of the Research Center of the INIA in Zaragoza (Casallo *et al.*, 1988). On 16<sup>th</sup> July, 1982, the Technical Regulations for the Control and Certification of Nursery Plants were approved. These Regulations were modified and recently updated with the Real Decreto 929/1995 dated 9 June.

This Regulation established three different plant categories:

- Parent Material;
- Basic Material;
- Certified Material.

***Requirements for the maintenance and production of the mother plants of the parent material:***

- (i) each mother plant must be assayed and shown free from the viruses listed in Tab. 1;
- (ii) the parent material must be grown in areas free of nematodes and at a distance of at least 800 m from commercial nurseries;
- (iii) the sanitary status must be as follows:

- for plants maintained in the field: annual indexing for easily-transmitted virus diseases;
- for plants maintained in vector-free conditions: indexing every three years for the easily-transmitted virus diseases and annual ELISA tests.

Data reported in Tab. 1 substantiated that the number of viruses to be tested is different according to the fruit trees considered. In the case of apple tree, only three viruses must be assayed for whereas, nine different viruses must be tested in cherry trees. As regarding viruses, most fruit trees shall be certified for the three ilarviruses (PNRSV, PDV, and ApMV) and for ACLSV, whereas CLRV is only needed for the certification of walnut tree.

***Requirements for the maintenance and production of the mother plants of the basic material.***

The sanitary status of the mother plants from the basic material must be checked annually for the easily transmissible virus diseases:

- |   |                 |
|---|-----------------|
| (i) Mother plants from seeds or grafting: | 100% of plants. |
| (ii) Mother plants from top cuttings:     | 10% of plants.  |
| (iii) Mother plants from layering:        | 1% of plants.   |

***Requirements for the maintenance and production of certified nursery plants.***

The sanitary status of the certified mother plants must be checked annually for easily-transmissible virus diseases according to Tab.2.

## References

- CASALLO, A., BAREA, A. and T. SANZ (1988). Virus control and the certification of fruit tree nursery plants in Spain (1980-87). *Acta Horticulturae*, 235: 257-262.

**Tab. 1.** Fruit species and viruses tested for the production and maintenance of the mother plants of parent material

	Almond	Apple	Apricot	Cherry	Peach	Pear	Eur. plum	Jap. plum	Walnut
ACLSV	+	+	+	+	+	+	+	+	
ApMV	+	+	+	+	+		+	+	
PPV	+		+		+		+	+	
PDV	+		+	+	+		+	+	
PNRSV	+		+	+	+		+	+	
ASGV		+							
ArMV				+					
PeAMV				+					
RRSV				+					
SLRV				+	+				
TBRV				+	+				
CRMV					+				
MLRSV							+	+	
CLRV									+

**Tab.2.** Testing of certified mother plants

Material	Number of plants to be tested		% of tolerance	
	Stone fruits	Pome fruits	Severe Diseases	Mild Diseases
Mother plants from grafting	1/20	1/50	0	0,25
Mother plants from seeds, top cutting or layering	1/100	1/400	0	0,25
Nurseries of certified seedlings	-	-	0	-
Nurseries of seedlings	*	*	0	2

\* The official board to carry out the analysis and verify whether procedures were followed.