

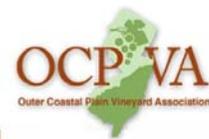
This is a manual for growers evaluating the varieties imported by the Outer Coastal Plain Vineyard Association. It contains background information, planting instructions, viticultural practices, data collection protocols, and data collection forms.

Evaluation of the EC01 and EC03 Grape Varieties

A guide for planting, care, and
data collection

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Background

The Outer Coastal Plain Vineyard Association (OCPVA), with support from the USDA/NJDA Specialty Crop Block Grant, *Establishing Identity for New Jersey Viticulture*, imported three new grape varieties new to the United States. These varieties have been patented in the U.S. by the Foundation Edmund Mach and the OCPVA has exclusive license to sell these varieties in the U.S. They are being propagated and sold to growers through Double A Nursery. The objective of this project is to evaluate the viticultural potential of these grapes for high quality wine production in New Jersey.

The varieties are:

1. ECO1 (formerly F1 P9). A red wine grape that is an intraspecies cross between Teroldego and Lagrein from the breeding program of Dr. Marco Stefanini.
2. ECO2 (formerly F1 P37). A red wine grape that is an intraspecies cross between Teroldego and Lagrein from the breeding program of Dr. Marco Stefanini.
3. ECO3 (formerly F3 P51). An aromatic white grape that is an intraspecies cross between Muscato Ottonel and Malvasia di Candia Aromatica from the breeding program of Dr. Marco Stefanini

Planting

Each collaborator will plant and evaluate the delivered vines. The planting should be arranged so that all the vines of the same variety are in the same block together.

Viticultural Practices

The training system for all vines will be Vertical shoot positioning (VSP) with bilateral cordons, spur-pruned or cane-pruned. Routine spray schedule for pest control including weeds. Shoot thinning to five shoots per foot of row and hedging as required.

Data Collection

Primary survival and phenologic data should be collected from the vines starting in the second year. Fruit production and quality data will begin in the third year after planting.

Each grower should record vine survival percentage of each variety each year after bud break. Development should be monitored and bud-break, bloom, veraison, and harvest dates should be recorded for each variety. The date of each of these phenological stages should be recorded using the modified Eichorn-Lorenz (E-L) scale of development (refer to figure below, suggested data forms are also provided below).

Data to be recorded annually:

1. Date of bud break.

For each variety record the date when half of the buds on the vine are showing green leaf tips (E-L stage 4).

2. Percentage alive.

For each variety sometime after bud break record the percentage of the total number of vines originally planted that are still alive.

3. Date of bloom.

For each variety record the date when approximately half of the flowers have shed their caps (E-L stage 23).

4. Date of 50% veraison.

For each variety record the date when approximately half of the berries show obvious color change (E-L stage 35).

5. Date of harvest.

For each variety record the date when the fruit were ready for harvest using similar harvest criteria for each variety (E-L stage 38).

6. Average yield per vine (in pounds)

7. Total soluble solids concentration (in °Brix).

For each variety record the °Brix of the juice expressed from a sample of at least 100 berries on the date of harvest.

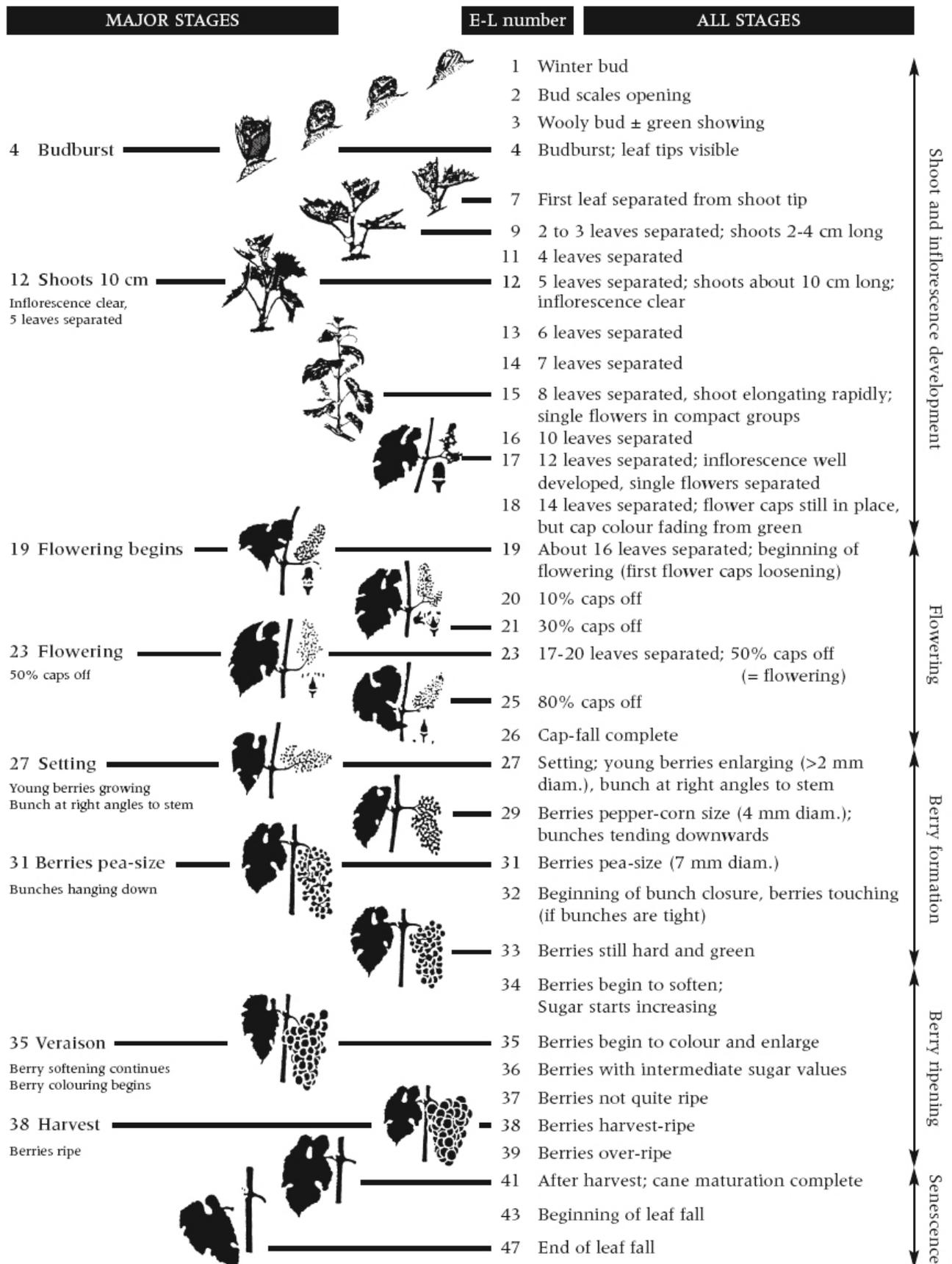
8. Total titratable acidity at harvest.

For each variety record the total titratable acidity (in malic acid equivalents) of the juice expressed from a sample of at least 100 berries on the date of harvest.

9. Photographs.

Take photographs with annotations of date and variety whenever possible, ideally when recording the various phenologic stages of development.

Submit all collected data to Larry Coia or Dan Ward annually after the growing season has ended.



Modified E-L system for identifying major and intermediate grapevine growth stages (revised from Coombe 1995). Note that not all varieties show a woolly bud or a green tip stage (May 2000) hence the five budburst stages in the modified original 1995 system have been changed slightly by removing stage 4 and allocating the definition of budburst to what was formerly stage 5. Revised version of "Grapevine growth stages – The modified E-L system" Viticulture 1 – Resources. 2nd edition 2004. Eds. Dry, P. and Coombe, B. (Winetitles)

