



**Timely Viticulture**

- Dormant
- Pre-Bloom
- Bloom
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- Mid Season
- Pre-Harvest
- Harvest
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- Dormant

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"Timely Vit" is designed to give those in the Maryland grape industry a timely reminder on procedures or topics they should be considering in the vineyard.

## Crop Management

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The goal of most grape growers is to produce high quality grapes for wine. For making the best wine, the highest quality grapes are often the most mature and uniform. In today's quality driven marketplace, the best fruit will command the highest prices and the greatest demand. Climate, environmental circumstances, and cultural practices are all important in determining fruit quality, however, few techniques may impact fruit maturity more than regulating yields to achieve a balanced vine and uniformly mature fruit. A previous "Timely Viticulture" discussed estimating the existing crop in the vineyard. Once tons per acre or pounds per vine data is collected, it is easy to work backwards towards a targeted yield. This issue will address adjusting the crop level for the desired outcome.

Problems associated with over cropping:

- In the Mid-Atlantic region, where many vineyards reside in areas of marginal season length, achieving full ripeness is a challenge, especially with late varieties (Cabernet Sauvignon.)
- Delayed ripening
- Uneven ripening
- Poor color
- Poor sugar content
- Poor varietal character intensity
- Inadequate tannin ripeness
- A vine that is over cropped will be much more sensitive to winter damage.

For young vineyards:

- Crop regulation usually involves removing any fruit in the first and second years, except on vines of exceptional vigor.
- Even in the third year, reducing the crop by half may be a wise measure to keep the vine healthy.
- A vine that is over cropped when it is young will be much more sensitive to winter damage and/or may never reach its full production potential.

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Factors to consider when setting a target yield:

- Timing of veraison. If the season is late, the crop may need to be thinned more severely to allow the fruit to ripen in a shorter period.
- If significant tropical storm activity is predicted (as is this year), a grower might elect to carry a smaller crop to allow it to be less sensitive to significant swings in moisture.
- If early frosts are expected, a smaller crop should be carried to allow the crop to ripen earlier and to allow the vines to recover and prepare for winter.
- If canopy has been compromised by disease (defoliated by downy) or insects (laced by Japanese beetles) the crop should be reduced.

An experienced grower will know his site and will develop a sense of what the optimal yields are to achieve full ripeness in certain varieties and fields.

### Fruit thinning

After the target yield has been determined, the fruit must be thinned to the proper level.

- Veraison thinning is desirable, especially for red varieties and it is easy to determine and thin the clusters that are behind in ripeness or uniformity of ripeness.
- Veraison thinning is also desirable to help reduce vigor on vigorous sites by allowing more "sinks" (grapes) to sap some of the extra energy.
- If the vineyard soil has high K content, if you wait until veraison to thin, the extra clusters can also be used as "sponges" to absorb the excess K to keep the pH of the remaining fruit from rising too quickly.
- Remove disease or damaged fruit first.
- Remove clusters that are behind in ripening.
- In most cases, remove apical clusters (highest on shoot for VSP).
- Remove clusters that are receiving less sunlight.
- For Smart-Dyson trained vines, allow about 65-70% of the crop on the top canopy and 30-35% of the crop on the lower canopy to help to synchronize ripening.
- Remove an even number of clusters on each side of a bilateral vine.

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