

ICV's Technical Procedures

Delestage

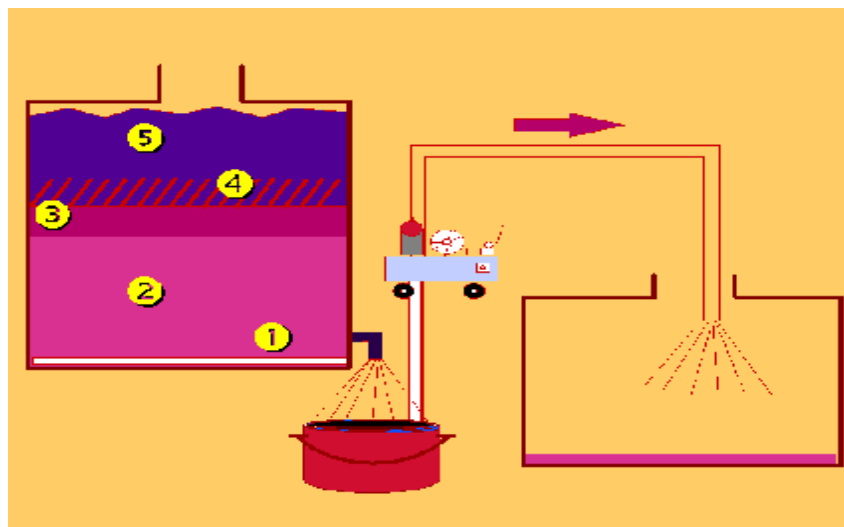
Delestage is a technical procedure carried out on grape juice or wine.

It helps optimize exchanges between the liquid and solid phases during maceration. The delestage developed by ICV is far superior to the traditional methods of pumping over.

The number of delestages is determined in collaboration with your winemaking consultant, and takes into account production objectives and tasting results.

First step: Emptying the vat while properly airing the juice and while sending it into another vat

The beginning of the first step



ICV Graph

Caption

1. Yeasts on the vat's floor. These stationary and tightly stacked yeasts

don't contribute to fermentation. Under these conditions, there is a high risk that sulphur composites expressing unpleasant smells and tastes will be produced and released.

2. Fermenting mass of juice. This juice is hardly in contact with the cap.

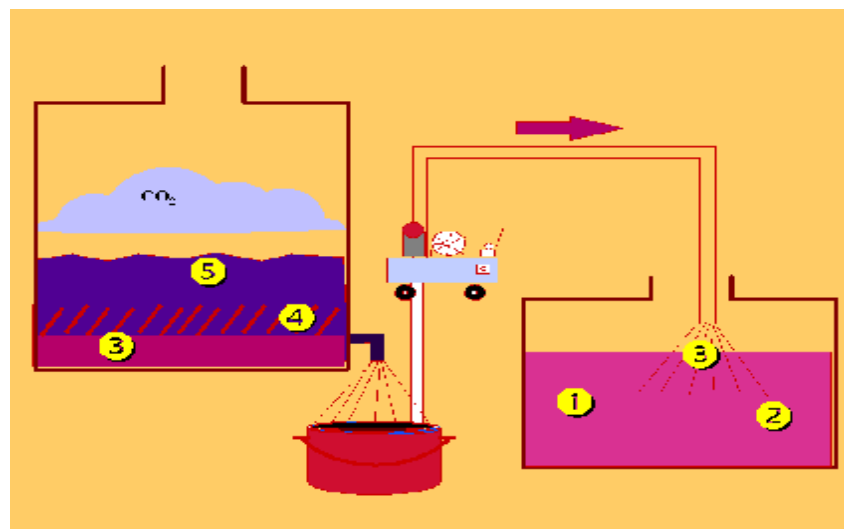
3. Juice situated directly under the cap.

4. Juice saturating the pomace. The juices under and in the pomace are highly saturated in composites diffused from the grape. With this excessive concentration, those juices are bad agents of dissolution and of stabilization of the cap's soluble composites: pigments, tannins, polysaccharides.

5. The pomace. The major part of the pomace isn't in contact with the juice. The spreading isn't optimized. Highly risky microflora can develop, protected from the competition of the fermenting juice's *Saccharomyces*.

Comments: To carry out a delestage, a reception vat is required as well as means of transferring juice (shafts and pumps) which are conform with standards of hygiene. Delestage can start once there is a pomace cap formed. The initial vat is entirely emptied and oxygen is added to the juice. An open jet in a tub ensures real oxygenation of the juice (transfer of 2-4 mg/liter of dissolved oxygen). Other methods are just as equally efficient: direct injection of oxygen in the juice reception vat (cliqueur) or the insertion of a porous stainless steel coupler on the pipes used for pumping.

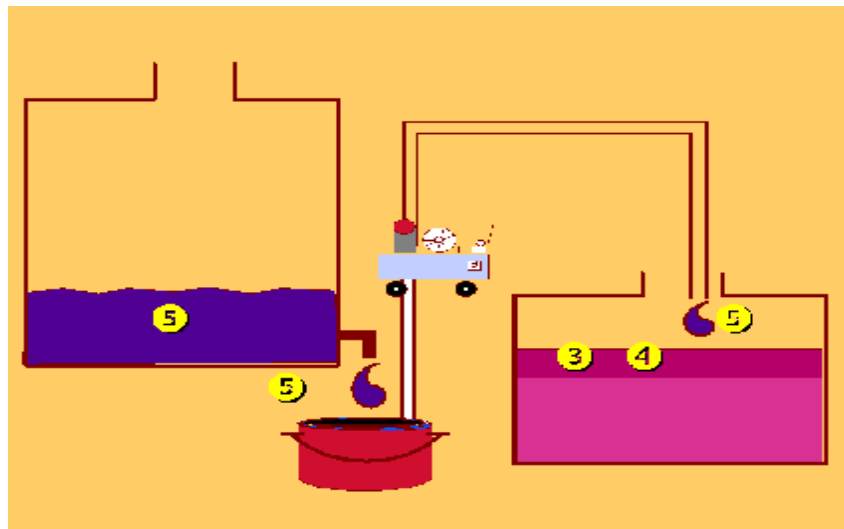
The end of the first step



ICV Graph

Comments: *Emptying all of the juice is a key factor in successfully carrying out a delestage. It ensures that the juice that is the most concentrated in polyphenols receives oxygen. This juice is located directly under the cap. The suspension of all yeasts and their oxygenation is one of the key elements to an alcoholic fermentation. NB. The juice under the cap is not completely renewed by a traditional pumping over ; A punching of the cap renews this juice, but doesn't add oxygen to it during fermentation.*

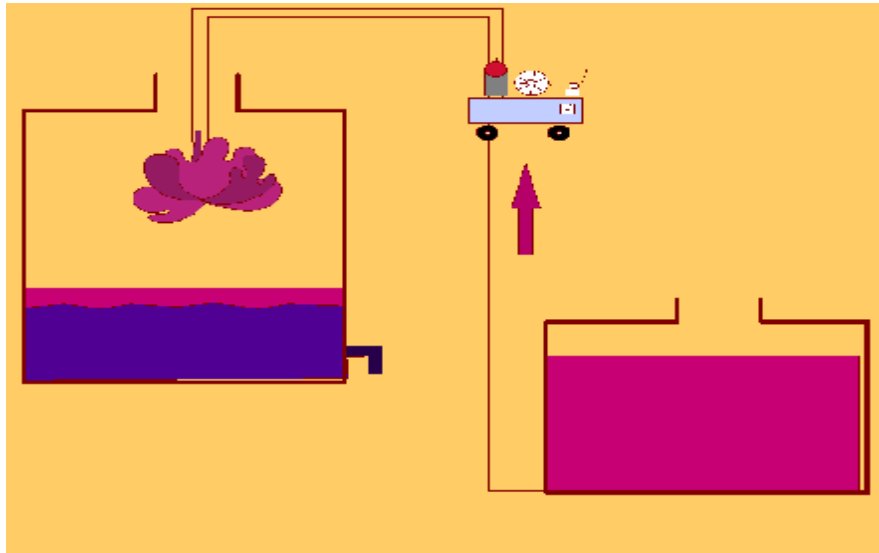
2nd step : Thoroughly draining the pomace at the bottom of the vat for 1 to 2 hours



ICV Graph

Comments: *Complete draining of the pomace helps achieve a better diffusion of the grapes' valuable elements: pigments, tannins, the pulp's and the zone under the skin's polysaccharides. Complete airing of the juice is a safe way of ensuring stabilization, of coating tannins and of preventing sulphited smells.*

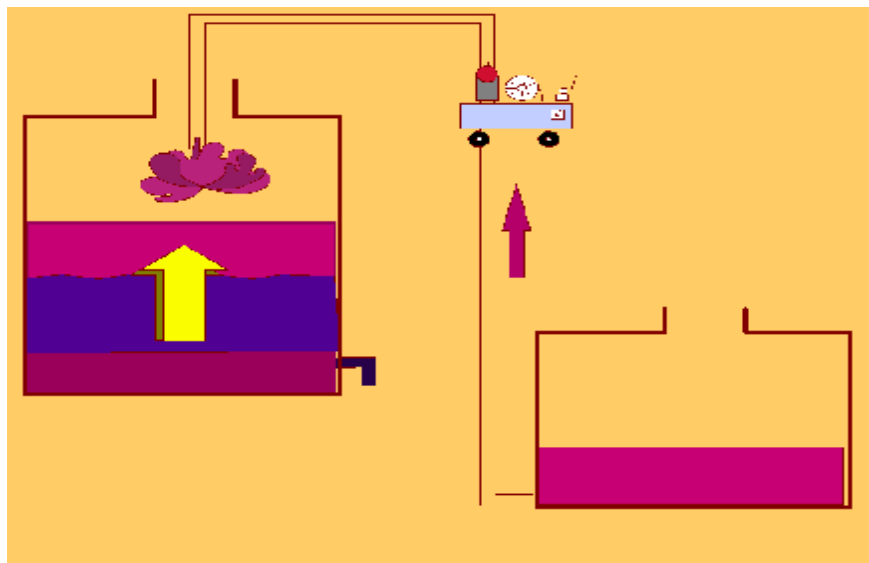
3rd step : Pumping over the juice again by spraying the pomace with a freely flowing, low pressure jet



ICV Graph

Comments: Pumping of juice or wine again over the pomace using a flowing, but low pressure jet, limits the mechanical grinding up of the pomace. It isn't necessary to wash all of the pomace's surface: either the pomace is completely covered with juice when the pressure is sufficient or the cap disintegrates and mixes well with the juice.

4th step : Rising up of the cap to the juice's or the wine's surface



ICV Graph

Comments: When the pomace remains intact, it rises up through the juice or wine, permitting thorough exchanges between the pomace and

the liquid without however grinding up the marc and the liquid. In other situations involving the pomace and the vat, it disintegrates resulting in

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