

## Analysis of anthocyanidin synthase step in red and yellow raspberry

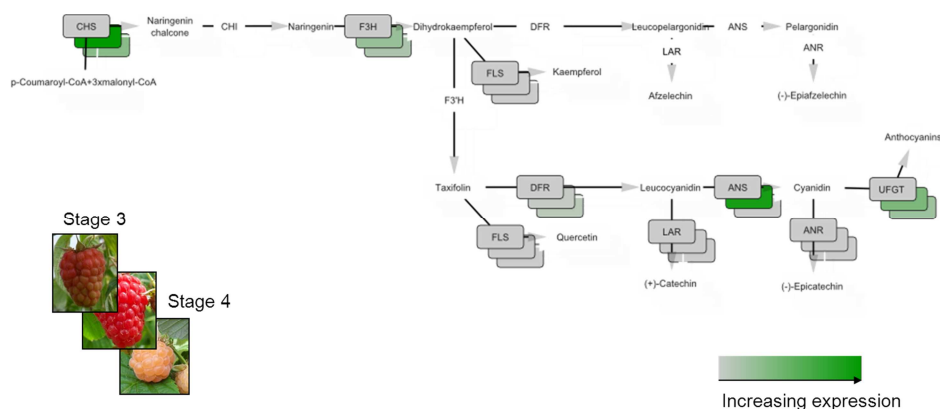
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Pigmentation is one of the most important quality traits in fruits. Not only color appeals to consumers but the presence of different pigments contributes to the overall health beneficial properties of fruit. Raspberries in particular are a rich source of health promoting nutrients, minerals, and vitamins and have significantly high levels of phenolic flavonoid phytochemicals including anthocyanins but also non phenolic carotenoids (1, 2, 3). Anthocyanins are water soluble polyphenolic pigments responsible for the colors of many flowers, fruits and other plant parts. These compounds have been described to have potential health beneficial effects against cancer, aging, inflammation and neuro-degenerative diseases (4). Aside from the health benefits, anthocyanins play basic role as an indicator of fruit quality and consumer acceptance. Raspberries with variation in color that range from deep purple to yellow are available, and raspberry color is determined by varying anthocyanin contents (3). Among yellow cultivars of raspberry, “Anne” is commercially important due to its excellent flavor, firm nature, large berry size and sweetness. Despite the interest in raspberry anthocyanins, little is known about the genetic control and their regulation process during fruit development. In yellow raspberries there seems to be a block of anthocyanin biosynthesis, even though there is no study on where in the pathway this block might occur. It is being investigated the reason behind the block responsible for yellow cultivars of raspberry, particularly “Anne”. Sequence and transcriptional analysis of the gene encoding anthocyanidin synthase was performed on yellow and red cultivars to get insight into the flavonoid biosynthesis pathway in raspberry.



## References

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