

# Fruits essay

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We use our sense of taste to differ if fruit is sweet or sour.

That taste depends on the components in the fruit. Fruits contain fructose, acids, vitamin, starch, proteins, and cellulose. All of these components contribute to the taste of fruit. Fruits with high fructose levels tend to be sweeter whereas fruits with high levels of acid tend to be sour. Oranges however, have equal quantities of fructose and acids, leaving the taste a mystery. Raw fruits contain more acid but when ripened the acid decreases and the amount of sugar increases.

Fruits such as bananas contain starch but gets converts to fructose when ripened. Until the starch is completely converted the fruit will have a sour taste. “ Fruit development and ripening are unique to plants and represent an important component of human and animal diets. ” (Giovannoni, 2004, para 1) The softening of fruit involves the partial breakdown of cell walls. Ripening involves the softening, increased juiciness and sweetness, and color changes of the fruit. Changes in fruit color involve changes in the expression of pigment biosynthetic gene. Ripening represents the shift from the protective function to dispersal function of the fruit. Ripening takes place with seed and embryo maturation.

In dry fruits (cereals, nuts, dandelions) ripening consists of desiccation and is considered maturation. Ripening in fleshy fruits is designed to make the fruit appealing to animals that eat the fruit as a means for seed dispersal. Fleshy fruits are either climacteric or non-climacteric. Climacteric fruits produce a reparative burst with a concomitant burst in ethylene synthesis, as the fruits

ripen. These include fruits with high degrees of flesh softening, like tomato, banana, avocado, peach etc. Ethylene is a major regulator of the ripening process. Inhibition of ethylene with inhibitors, transgenic approaches or mutants blocks ripening.

Exogenous ethylene accelerates ripening. There are also developmental factors involved because fruit does not attain competence to respond to ethylene until near the end of the cell expansion phase (the mature green stage). Several genes associated with ripening are ethylene inducible. This occurs in most genes but at least one is known where mRNA accumulation is regulated. None of these genes are induced until competence for ethylene response is attained. Ethylene production is autocatalytic which means the exposure to ethylene stimulates the synthesis of more ethylene.

This occurs because the genes for the biosynthetic enzymes (e. g. ACC SYNTHASE) are ethylene inducible. Furthermore, the Never-ripe gene is ethylene inducible, resulting in a positive feedback loop for ethylene sensitivity as well. Both these factors contribute to the dramatic burst of ethylene production during ripening. According to Giovannoni, the role of the climacteric process is unclear however it is clear that the process helps fruits to ripen. Whether ripe or unripe, people consume fruits for numerous reasons.

The body's reaction to fruit does stop at the mouth, it continues through the entire digestive system. As the fruit breaks down, it releases vitamin, minerals, and antioxidants to the bloodstream that the body need. A large enough consumption of these components will create a healthy cleansing of

impurities from the body which can aid in weight loss. They also provide energy from the release of natural sugars contained in certain fruits.

However, as with anything that we consume, we must consume them in moderation so that we maintain a healthy balance in our immune system.

No matter the reason to consume fruits, we must remember the effect that it has not only on us but nature and its reproduction. In the same way that we benefit from the consumption of fruits, so do animals and the growth of some new fruit crops. Some fruits contain seeds that can be replanted to start new crops of fruits. In addition, animals depend on some types of fruits for survival while living in nature.

The small nuts and berries are important nutrients for them and their families. Also understand that when we eat fruits we are preventing animals from eating them and transferring seeds to other locations. References  
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