

Ad B – Health significance

- Fruit is an irreplaceable part of human nutrition
- Average consumption per person should reach 80-100 kg a year; current consumption equals ca. 84 kg per person per year (out of which, 48.8 kg of fruits come from temperate zone, apples make up 22.5 kg), world fruits consumption reaches ca. 80-140 kg

Chemical structure

- Water, fleshy fruits contain 79-87 % of water
- Carbohydrates; first, starch makes up the majority of carbohydrates, sucrose dominates in peaches, apricots as well as in plums and damson plums; glucose and fructose dominate over sucrose in apples

- Cellulose in fruits: 1-2 %
- Pectin: Mostly in unripe fruits, ripe apples contain 0.1-1 % of pectin, black currant: 1-1.4 %
- Acids: Malic acid dominates in fruits; certain species contain most of citric acid (pears); tartaric acid, succinic acid, and salicylic acid are also present in the fruits
- Tannin: Responsible for bitter and rough flavour; unripe fruits contain up to 1 % of tannin, ripe fruits only 0.1 %
- Aromas: Esters of acids and aldehydes, responsible for typical flavour; ethylene promoting fruit ripening is an aroma
- Nitrogen compounds: Max. 1 %

- Fats: Highest content in nuts (walnut: 72 %, hazelnut: 62.6 %, almond: 50 %)
- Vitamins: Concentrations vary among different varieties, species, location, fruit maturity, fruit size, harvesting time and storage conditions; fruits are a significant vitamin C source (berries mostly - black currant 90-250 mg%, strawberries: 30-95 mg%); other vitamins are scarce in fruits (provitamin A, carotene in apricots and peaches)
- Minerals: K, Ca, Mg, P, and Fe





Therapeutic qualities of fruits

- Fruit is the healthiest fast food
- Improves physical fitness
- Optimum effect on metabolism
- Excellent source of energy

Best effect: Fresh and naturally grown fruits



ad C – Climate co-creator

- Fruit trees have significant impact on formation of climate
- Prevention of fast air flows
- Prevention of water and wind erosion
- Production of O₂

D – Aesthetic significance

- Fruit trees are landscape ornaments, and play an important role in landscape and city green areas
- Scattered green areas help:
- Biological stability of the area (strengthening of ecological relations)
- Land improvements (plantings at landfills)
- Isolation (noise and dust protection)
- Sanitation (improvements of hygiene in the area)
- Aesthetics (preservation of soft and mellow European landscape qualities)
- Education (varietal and species diversity)
- Relaxation (preservation of recreational potentials of the landscape)

ad E – Social significance

- There have been continuous efforts in plant cultivation which promote patience, altruism, and working for future generations

ad F – Economical significance

- Amount of produced wood varies greatly (525,000 m³)
- Walnut tree wood (furniture, veneers, turning work)
- Pear tree wood (furniture, wheelwrighting, sport utilities)
- Cherry tree wood (wood-carving, furniture, woodworking)
- Plum tree wood (furniture, wood-carving, turning work)
- Apple tree wood (furniture, equipment making, pressers, school supplies)