

A FEW BASIC PRINCIPLES CONCERNING THE PRUNING OF ORNAMENTAL TREES FROM CROWN

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Abstract

Research conducted by the author is a review of the major cuts crown formation in ornamental trees. The paper presents different techniques used in modeling tree crown, and some problems which may arise from incorrect application of such interventions.

Key words: ornamental trees. cutting. tree crown. branches.

1. INTRODUCTION

Pruning trees are technical operations that aim at reducing or overlapping of certain parts of a plant (roots, twigs, branches, old young shoots, etc.) in order to change the natural growth or to steer SAP in other parts of the crown to perform certain functions and to reach this stage in which to exercise those functions at maximum requires a greater number of years. This period was accompanied by various works (split) training of crowns, which are very costly.

2. MATERIAL AND METHOD

The aim of these works (cuts) is to achieve a certain form and an abundance of flowering trees trained retain specific functions for a period of time as long as close to their natural longevity, without having to depreciate and lose vitality or to become a public hazard by breaking the stability at the knockdown by grubbing-up. Therefore, special attention should be paid to the various interventions in the form of cuts in the crown, not to cause injury to the trees.

3. RESULTS AND DISCUSSION

1. Tree-General aspects

As is known from the literature for a long time, the trees are cultivated and grown trees in the group, subject to the direct competition, but protecting each other from this sort of request. The trees themselves are characterized by a compact habitus, being lower and thicker trunk in diameter, conical in shape, have a larger, their feeding apparatus is rich even inside the crown, doubting and decreasing elastic and surface attack. The trees themselves, being lower and thicker trunk in diameter, conical in shape, have a larger, their feeding apparatus is rich even inside the crown, doubting and decreasing and so the area of the attack. During stage 3, solitary trees, being deprived of protection, must take and pass into the soil, during the storm, huge forces (Mattheck, 2003). At the same time, under a tree that does not support interventions from outside, there is a dynamic balance between the volume of very sensitive crown and root system. Infringement of this dynamic equilibrium has to follow the tree (Shigo, 1994).

2. Tree as anchor in soil system

In general, wood tissue is composed of lignin which resists pressure, among cellulose, which provides tensile strength. The rest is stored in the form of starch and glucose as energy reserve /in the body of the wood. In the group, the trees can make the difference between normal growth in terms of static and increasing trunk or branches, being driven by the desire of photosynthesis. The root system of the tree is composed of the roots dedicated to nutrition and the roots for anchorage, so stability. In terms of static, is interesting but the root system to the anchorage.

The root system for the anchorage at trees grown in isolation is made on the subject of wind pressure in predominantly long, thick roots, which resists traction due to agglomeration of pulp. On the opposite side of the wind pressure, the root system is composed of the roots than shorter and thicker, flattened at the top, which resists pressure, due to the congestion of lignin. Thus, the tree grew up an orphan is optimally anchored, with a minimum of root system built for this purpose.

3. Tree as a closed system

Some trees may be considered closed. In the tree, a part captures the energy and the other part provides water and 13 important elements for nutrition. If one of the parties is threatened or shrinks, the other side can adapt as long as event to overtax the entire system and if it is enough time to be able to react. A fresh wound for the tree means an interruption of the circulation of the water. Against it, the tree tries to defend himself by building parts of the reaction (subdivision). Thus, the wounded tree transforms local reserves of energy (starch and glucose) in phenols and cineol, which he puts in the so-called zone of reaction (Dam), constructing a barrier and thus isolating the injured area. As a side effect, this barrier used to repel attacks living wood mushroom (mushroom temperate parasites), phenols and terpens are harmful. Responsible for these areas of the dam are the wood cells, which are found only in the first annual rings Therefore, this tissue inside the tree would be good not to be truncated or hurt in any way, lacking its responsiveness. The effectiveness of the division will depend on the possibilities of reaction of parenchyma of the first annual rings differ from species to species, and their basic knowledge ensures a significant reaction to the specialists of our trees, when they have an absolute need.

4. Crown training split

From the above it follows that small wounds, caused by a cut are more easily borne by trees because they were affected, only the first annual rings, which show a high response capacity through partitioning. In general, it is recommended that the entire crown cutting training, must contain more than 15% of its volume; as a rule, however, the intensity of cut varies between 5% and 15% (5% = easy cutting, cutting average 10% = 15% = strong cutting). Thus, the negative effects caused by temporarily assigning to dynamic balance by cutting less bearable for the tree. As a basic principle, it is preferable to extraction of dried branches and green in April-May, at the beginning of the growing season.

5. The classification of the main tree species after subdivision potential

Research carried out at the trees and ornamental shrubs have shown that the potential for subdivision varies depending on the species. This finding has led to the classification of their species with potentially good (high) of subdivision, which supports an injury by cutting branches up to 10 cm in diameter, and species with potentially low (low) bulkhead, which may bear the same injury only up to 5 cm in diameter.

6. General issues relating to pruning and training of Crowns (driving)

Larger wounds presents the danger of ingress of fungi that destroy wood. If you have very thick cut branches, there is no other solution, this is done by shortening them, removed from the trunk, thus resulting in a prominent trunk node for this case, it is important that cutting is conducted so that the part which remains on the trunk to exist a ascending branch, which have at least one-third of the thickness of the branch to be shortened. This recommendation aims to ensure the future of feeding nutrient materials remained on trunk node. For small wounds caused by the split is necessary of the tree and plant control and disposition of his treatment at the time, so that the branches to be removed to have the age between 2 and 5 years. The works of the crown throughout the growing season are useful, and the application of solutions to encourage the closure of wounds/wound protection against ultraviolet radiation. The cut must be ridden in a certain angle and in a certain place, avoiding injury to tissue that remains/cracking on the tree and given loads a cutting surface as small, smooth and without fringe. To do this, the tool used for cutting thick branches must be well sharp. Very thick branches, with significant weight on its own, it should be shortened and tense for stress relieving before final cutting. Thus, it avoids cracking tissue which remains on the tree.

7. Split training (construction) of the crown to young trees

Specifically, this means:

- removal of branches of competition at a stage as possible early on, immediately after their appearance;
- remove the side branches with a diameter greater than 5 cm;
- the following branches that touch each other or cross, cut the branch raised at an angle lower than vertical and/or thinner branch;

Start by training the tree crown made in nursery, split and then continued at the place of planting.

8. Split to ensure space

Pruning to ensure space light, are part of the harvesting training (construction) of the crown and will include the following recommendations:

- it is preferable to start as early in their implementation, thus resulting in small wounds and the tree may be adjusted by allocation of the work in accordance with the specific conditions of the crown;
- tree needs approximately 1/3 of its total length to represent the remaining crown unharmed;
- it continues in this way, gradually, pending the passage space required on the spot. To these are added 0.5 m cutting branches at the bottom of the stem branches very thick on trees showing a tendency to lean and difficult with the passage of time.

An obligatory condition is respected to avoid cutting the bottom branches of the stem to heights greater than what is necessary to ensure your space. To the elderly, aging phenomenon has its beginning at the periphery of the crown, through the gradual death of this part so that the crown of the tree, man must be shortened by her split reductive to the outskirts. Such an operation is not possible only when there is sufficient functional crown in its lower part, close to the ground.

9. Split crown care

Growth trends in crown junk are treated as pretrial detention carried out by: in large part, to the drawing, a special attention should be given to the branches which tend to grow vertically, so the dominant terminal branch competing, especially in times of stress of shaft the most frequently encountered cutting crown is the care of removing dried branches, partially broken or showing longitudinal cracks.

10. Split by clipping the crown or crown shortening

Cutting of the cutback of the crown, between two points of forking branches, is a unprofessional, inappropriate and heavily damaging the tree, but also meets in daily practice. By doing so, the entire crown is affected by the cut, which took into account the structures of the movement tee, (flow) to transform solids, nutrients absorbed by their own subjects.

The aftermath of the crown otherwise been depopulated by slaughter are: inadequate tree-feeding due to a lack of branches that support the foliar fine, the formation of multiple branches or twigs, greedy;

- formation of tennes deep inside the tree.

Shortening of the crown are characterized by cutting a portion of it (10 to 35% of the volume of the crown), affected by a possible breakage, the rest remains unaffected. By doing so, the movement of nutrients absorbed by the body takes place on a diversionary route, due to the cut made little over a node (the ascending Branch). In this area there is also a possibility of subdivision of the tree much increased. As a result of: - the risk of occurrence of rot is much smaller. However, this risk cannot be excluded and is related to the size of the wound, so the cut runs only if it is really necessary to ensure the stability of the tree of components or parts;

- the crown is kept at least partially;
- multiple logging and greedy branches can form, but less frequently in the case.

Shortening of the crown is recommended only in exceptional cases, when there are other less radical possibilities for saving a tree.

4. CONCLUSIONS

1. Cutting of branches from the bottom of the stem of trees may be made only to a height (for obvious reasons) because the height/diameter relationship becomes static and negative to his crown gradually dries from the periphery, lacking thus we can gradually reduce and controlled from the outside.
2. Split carried out much too late been depopulated by slaughter or lack of training (construction) of the crowns. Large wounds, often numerous, arising as a result of cutting the branches too thick, invasive fungi entering the temperate, which causes the appearance of rot and lead to stability problems of trees.
3. Increase injuries by improper cutting of branches. Is particularly the case when the driver saw accidentally enter the branch that remains in the trunk, and by using appropriate tools blunt, fringed injuries occur that can not be partitioned tree efficiently. Lack process of relieving the heavy branches, applied before shortening their lead to unwanted consequences cracking the same tissue that remains.
4. Production of crowns with different shapes and too seldom cut the crown cannot endure the hardships that are too large, causing cracks and fractures of branches or lasting cutting very large. Space (light) produce wounds not run at the time by cutting large branches, partly delayed crack of branches, etc.
5. The care, protection, and planting them in urban spaces, become a good even more precious, vital for our health.
6. Observing the trees well and with a lot of attention, so that their outer appearance, we will tell you more (Mattheck, 2003)

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