# Fruit Sugar

# FROM THE "BEETLEBUNG TREE"

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The whalers of the early 19th Century called the Tupelo tree the "beetlebung tree" because they used its hard wood for making bungs and mallets ("beetles"); it also was used for making wood pipes and was so hard that iron bindings were not necessary. Today the Tupelo tree is known by various names such as the sour gum tree and the wild plum tree, but to persons of discriminating taste who "know their honeys," it is known as the tree which produces the super honey known as Tupelo honey.

## Superior in quality

Tupelo honey is delicately flavored, crystal clear, smooth in texture, will not granulate, and does not turn rancid. Samples have been kept perfectly for over 20 years. The authentic, white Tupelo honey is produced by some 50 apiaries located in the swamps of Florida. Until recently the honey was brought to market in riverboats, but now a few crude roads have been built.

The Tupelo honey season is from late April until early May. Nothing else is blooming at this time, which insures its purity. Approximately 500,000 pounds of honey are produced during this threeweek period. These Tupelo bees are busy fellows. It is said that the nectar from the one-seed Tupelo blossom fairly drips from the flower, and the bees work so hard that they last one half as long as other bees on less succulent nectars. (Incidentally, it takes 37,000 trips to make one pound of honey.)

### Source of energy

This super honey is not only the delight of those with a sweet-tooth but, because of its high concentration of levulose, it possesses qualities which are very desirable from a health viewpoint. Tupelo honey contains 46% levulose. Now, levulose (for fructose, "fruit sugar") is

one of the finest sugars known. It is easily stored by the body as a reserve source of energy, and can be directly oxidized to carbon dioxide and water as an immediate source of energy. It is reported as conserving proteins and fatty acids and is removed from the blood faster than glucose. It is stored in the liver to a greater extent than other sugars. This property should prove helpful to those who need to eat often in order to restore the liver reserves of sugar (glycogen).

#### Diabetes mellitus

The utilization of dextrose is dependent on its being phosphorylated under the influence of hexokinase (the reaction resulting from the activity of pituitary and adrenal hormones) by the action of insulin. The utilization of levulose likewise requires phosphorylation. This reaction, however, being expedited by the enzyme fructokinase, does not require insulin for its activity. Untoward effects of levulose, even when injected into the bloodstream, have never been reported to my knowledge. This ability of the body to metabolize levulose without insulin has been the subject of considerable study in relation to management of diabetes mellitus.

A word of caution here. Not all diabetics can utilize this substance as those with a condition known as ketosis cannot metabolize it as well. Then, too, we must remember that pure natural levulose costs \$11.00 per pound and that even in Tupelo honey which is 46% levulose, there are other sugars which do not meet with this description. This does not take away from the fact that Tupelo honey as a source of levulose is without equal. The stabilizing effects of this honey are made more effective by the rich levulose content, but it does not make it a "safe" honey for diabetics to use indiscriminately.

#### Many delightful uses

As a sweetener for most anything,

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Tupelo honey is excellent. A mixture of approximately 1/3 Tupelo honey, 1/3 blackstrap molasses and 1/3 pure cider vinegar makes a tasty salad dressing. Many people have reported benefits to their general health by taking one tablespoonful of this honey-vinegar-molasses mixture in a glass of water once or twice a day. (This also supplies potassium which is helpful in the utilization of sugar.) Tupelo honey, when mixed with sesame butter ("tahini"), not only improves the flavor of the butter but also its nutritional quality. Plain whole wheat bread and Tupelo honey "sandwiches" are delicious, particularly as a treat for children between meals. Honey confections may be made by mixing it with popcorn or sesame seed.

Whenever this super honey is used in the diet for the satisfaction of the "sweet-tooth," we may be sure that we are doing so without worry of harming the health. The higher price that tupelo honey brings on the market over alfalfa and clover honeys is in keeping with its nutritional merits.

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