

REFLECTIONS ON THE IMPORTANCE OF THE CULTIVATION OF THE SPECIES *CYNARA SCOLYMUS* L. IN ROMANIA

**DUDA Simona Carmen, Leon Sorin MUNTEAN, Marcel Matei DUDA,
Dan Ioan VÂRBAN, Sorin MUNTEAN, Cristina MOLDOVAN**
University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, RO
simonavaida2@gmail.com

Abstract. Artichoke is a heat-loving plant that is grown for foliage or herba, for medicinal purposes (due cynarin content, polyphenols, flavonoids, bitter principles, triterpene compounds, sterols, glycosides A and B, etc.), for food purposes, as an ornamental, melliferous or energetic plant.

The complex of active ingredients has the action of: choleric, stimulates bile secretion, cytotoxic, cholagogue, depurative, diuretic, laxative, lipid-lowering and cholesterol lowering agents, bacteriostatic, antimicrobial, increases the dry residue of bile, stimulates diuresis and antitoxic function of the liver, has a trophic action on cells; promotes liver elimination of toxic wastes from the body, acts as renal decongestant.

Keywords: artichokes, multiple uses.

„With medicinal plants back towards the future” (Tyler V.E.,
1999)

Since ancient times, people have wanted to find cures for diseases that tortured them. They used knowledge passed down from generation to generation, and to treat diseases most often used herbs. During the geto-dacian ancestors have used herbs to prevent and cure many diseases.

Medicinal plants produce fewer side effects and much lower secondary effects than synthetic drugs. This category of plants can capitalize on less productive lands, farmers can provide significant income, or honey from ornamental crops; medicinal plants and crops can be an important export material. They can be expanded as cultures in school lots, parks and gardens, combining beauty with usefulness (Muntean et al., 2007).

Artichokes are grown for leaves (*Cynarae folium*) containing: 0.2-0.3% cynarin acid (1,5-dicaffeil China) (formed during infusion of the

leaves), polyphenol oxidase, flavonoids (cinarozida and scolimozida), azulenogene bitter principles (eg cinaropicrina), triterpene compounds, sterol glycosides A and B, mucilages, pectins, tannins, amino acids, sugars, organic acids, triterpene derivatives, enzymes, salts of potassium and magnesium and others.

The species was reported in the Italian peninsula from sec. IV BC. The name " *Cynara* " was given by Lucius Junius Moderatus Columella (first century AD) for its gray color. He writes about artichokes in his treatise on agriculture, which is the most complete work of its kind remaining in antiquity. The term " *scolymus* " comes from Greek and means spin and thorny. Palladius speaks in his writings about the culture of this plant, made by the Romans and Greeks. Plant shape, similar to that in our time is the result of the work of cultivation and selection of Italian gardeners since sec. XV, as vegetables (Gabriela Vlăsceanu et al., 2008).

The complex of active ingredients has the action of: choleric - increases bile volume 4-5 times (cynarin), stimulates bile secretion, cytotoxic (cinaropicrina), cholagogue, depurative, diuretic (cinarozida), laxatives, lipid-lowering and cholesterol lowering agents, bacteriostatic, antimicrobial, increases dry residue of bile, stimulates diuresis and antitoxic function of the liver, has trophic action on the liver, promotes elimination of toxic wastes from the body, acts as renal decongestant. Artichoke is an important remedy in chronic hepatitis (cirrhosis) in hepatobiliary dysfunction, especially in biliary insufficiency, subacute and chronic cholecystitis, in angiocolitis, chronic nephritis in hepatocoleodocului partial obstruction, but also the most common metabolic diseases (obesity, dyslipidemia, diabetes or atherosclerosis), gastrointestinal (constipation, hemorrhoids), rash (allergic rash, acne, furunculosis, etc.) angina pectoris, atherosclerosis, hemorrhoids, fatigue, exhaustion, gout, rheumatism, poisoning and others. (Gabriela Vlăsceanu et al., 2008).

Administration of artichoke dishes in various forms of jaundice leads to an increase in urinary excretion of bile salts and pigments disappearance of urine, stool and skin.

Artichoke extract underlying Romanian products Anghirol (solution or tablets), Hepar-SL forte (capsules), Hepatobil (compressed), Instamixt (pellets).

Artichoke is also consumed as a vegetable - inflorescence receptacle and fleshy scales - from the time of the Egyptians and Romans (Viorica Cucu, 1978).

They contain 1.7 to 3.6% raw protein, 0.5-0.8% fat, 6-8% non-nitrogenous extractive and others. Also as a vegetables is grown *Cynara*

cardunculus L. species with common name cardoon (www.insc.ro Order 1269/2005) from which can be consumed leaf petiole and leaves bleached.

Artichoke, as a plant of decoration, put in a larger pot grows like a large jellyfish, with large leaves also curled, colored in a gorgeous dark green with pearly designs with long spines on the edges. On the stem heights up to 160 centimeters we find purple flowers (Fig. 2.4.2.). Seeds, brown, also have a ovoid shape and are arranged in sheaths of 3-8 mm, with a small tuft. white Both juice and roothave therapeutic properties. The thorns which it has makes so that animals or birds stay away from the plant, so that those who have pets can keep calm, because they will not spoil the wonderful plant. Those who live at house can plant also along the fence, making a second hedge, that children can not pass, which gives a pleasing appearance to the viewers (<http://www.razboiulnevazut.com>).

In Romania, many rural areas are threatened by desertification. Precisely these areas, mainly southern, are the most fertile. Artichoke is the plant that can stop the devastation plain and provides people an economic and social opportunity (<http://www.lumeasatului.ro>).

From the inflorescences was prepared also a vegetable rennet. It is suitable to be cultivated also as an ornamental plant in parks and gardens. Also in Western Europe as a plant is grown for energy - biomass.

External market demand for vegetable grains exceeds 50 times the offer. New Romanian-Greek company, Green Energy, proposes a strategy that aims to capitalize on Romania mostly for biomass which will be obtained on 10,000 ha planted with artichokes.

Artichoke is also a melliferous plant, insects preferring its flowers to many other species. Young plants can be used also in feeding purposes. Artichoke has a great growth force. It could be used as an energetic plant to produce pellets that can be used as fuel (2 kg pellets artichokes are the equivalent of a liter of diesel).

Responds well to fertilization with manure in doses of 20 t / ha.

In the eastern city of Cluj we have grown artichokes in 2005, with good results. You can get 2-3 harvests per year of leaves, depending on the climate, with an annual production of 4-5 t / ha dry leaves. Also, in years with mild winters with minimum temperature greater than -10 ° C can be achieved a little seed production in plants grown on sloping ground.

- ❖ At artichokes, we recommend growing the variety Unirea, which has shown good results in the period 2008-2010, in the experimental field from Jucu, whose climatic conditions are similar to those of the

Transylvania Plain. Unirea has excelled in high yields and quality, which is confirmed by the high rate of profit (74%).

References

1. DUDA, M. MARCEL, DAN I. VÂRBAN, 2003, Medicinal plant cultivation. Course. Publisher AcademicPres.
2. MUNTEAN, LEON SORIN, MIRCEA TĂMAȘ, SORIN MUNTEAN, LEON MUNTEAN, MATEI MARCEL DUDA, DAN IOAN VÂRBAN, SIMION FLORIAN, 2007. Treaty of cultivated and wild medicinal plants, Ed Risoprint Cluj-Napoca, 928 p, ISBN 978-973-751-463-9.
3. VAIDA SIMONA CARMEN, 2012. Research on the biology, cultivation technology and exploitation for the species *Calendula officinalis* L. and *Cynara scolymus* L. Ph D Thesis. USAMV Cluj-Napoca.
4. VLĂSCEANU GABRIELA, GETA NEGRU ȘI FLORENTINA BURCEA, 2008. Anghinarea. În: Hofigal – Natură și sănătate, Nr. 12, iun. 2008, ISSN 1842-3310, p. 23-24.