

Black locust (*Robinia pseudoacacia* L.), a key species for the forest-related rural economy in the west of Romania

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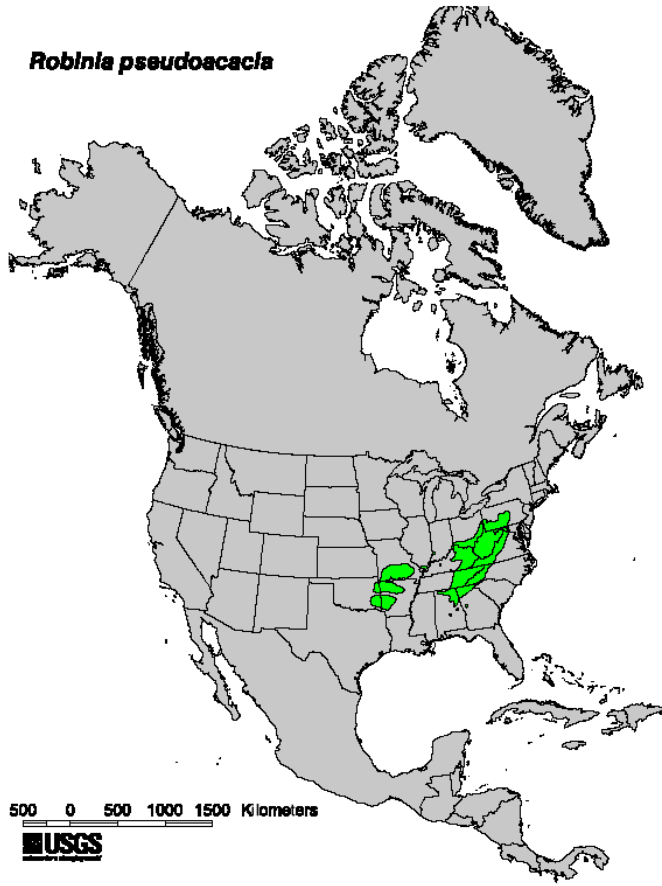
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Black locust = The **EVIL**

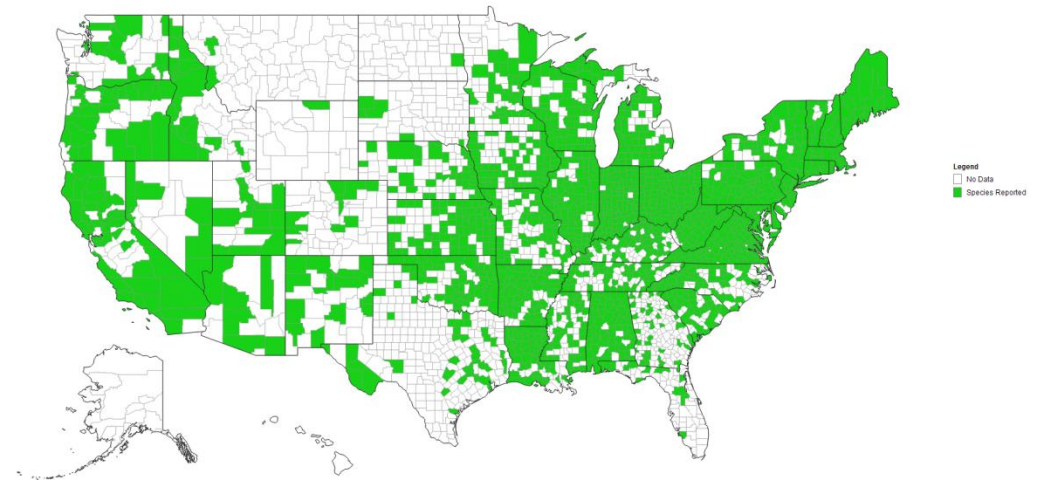
- **North America:** considered an *invasive species* in Connecticut and Wisconsin, and *prohibited* in Massachusetts.

Robinia pseudoacacia



Map of black locust natural range
in the U.S.A. (from Little, 1971)

black locust (*Robinia pseudoacacia*)



Map generated on Jun 5, 2017

Map of black locust **as invasive tree species** in the U.S.A.
(from <https://www.invasiveplantatlas.org/subject.html?sub=3350>)

Black locust = The **EVIL**

- **Europe:** accounted among the 100 *most invasive alien species*; considered as *invasive* in 17 countries.
- **Australia:** considered an *environmental weed* in Victoria, New South Wales, South, and Western Australia, where the species is naturalized.
- **South Africa:** regarded as a *weed* because of its habit suckering.

Europe: 2.3 million ha

of black locust forests

- Hungary (460,000 ha)
- Ukraine (422,525 ha)
- Italy (377,186 ha)
- **Romania (250,000 ha)**
- France (191,000 ha)
- Serbia (169,153 ha)
- Bulgaria (150,090 ha), etc.

ROMANIA

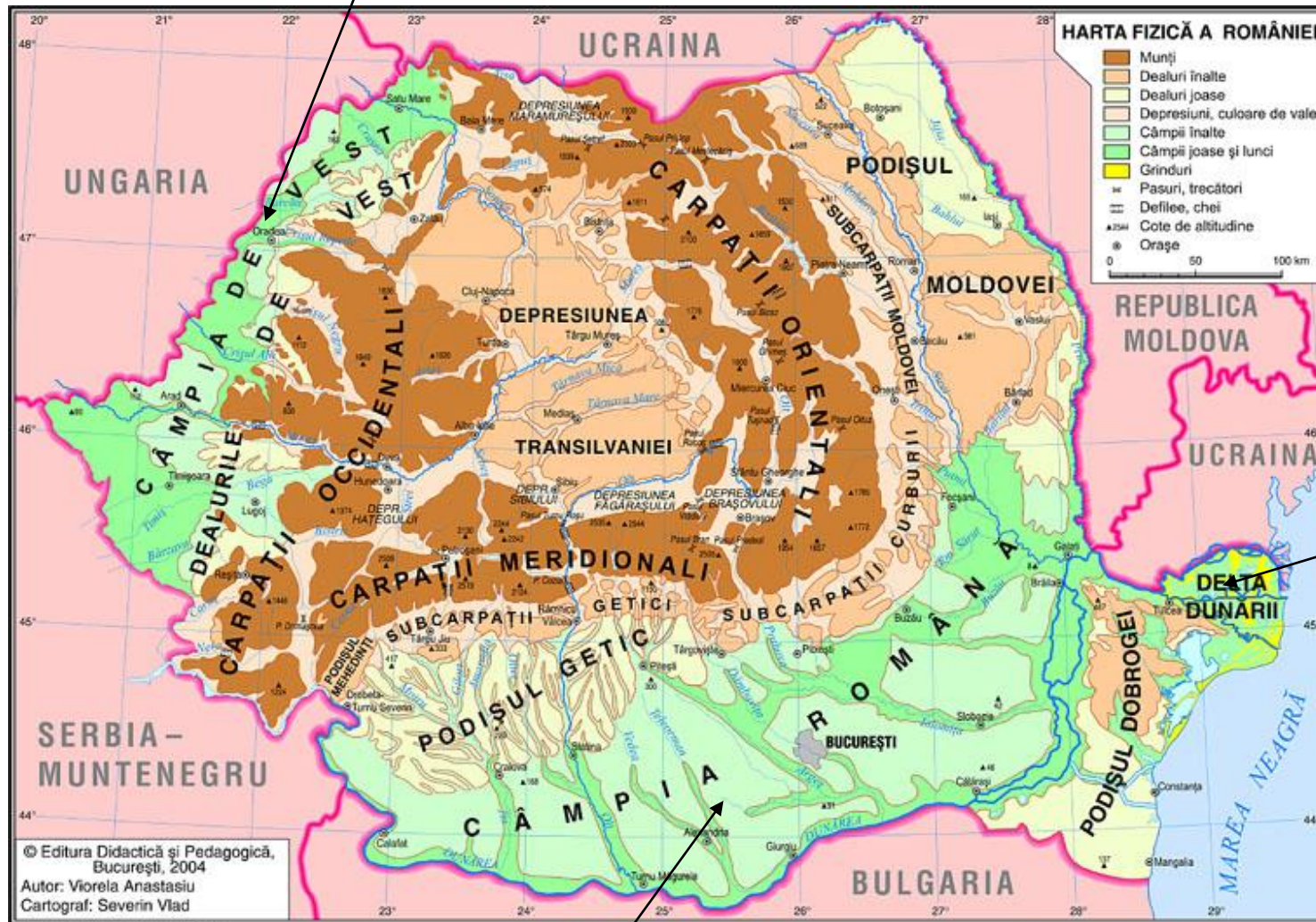
Sand dunes are an important component of landscape, covering about **560,000 ha**.

Out of them, about 460,000 ha of sand dunes are located in the **Romanian Plain** (south of RO).

Other important areas of sands in Romania:

- **Câmpia de Vest (Western Plain = Câmpia Tisei)**
- Câmpia Tecuciului (Tecuci Plain)
- Delta Dunării (Danube Delta).

Western Plain

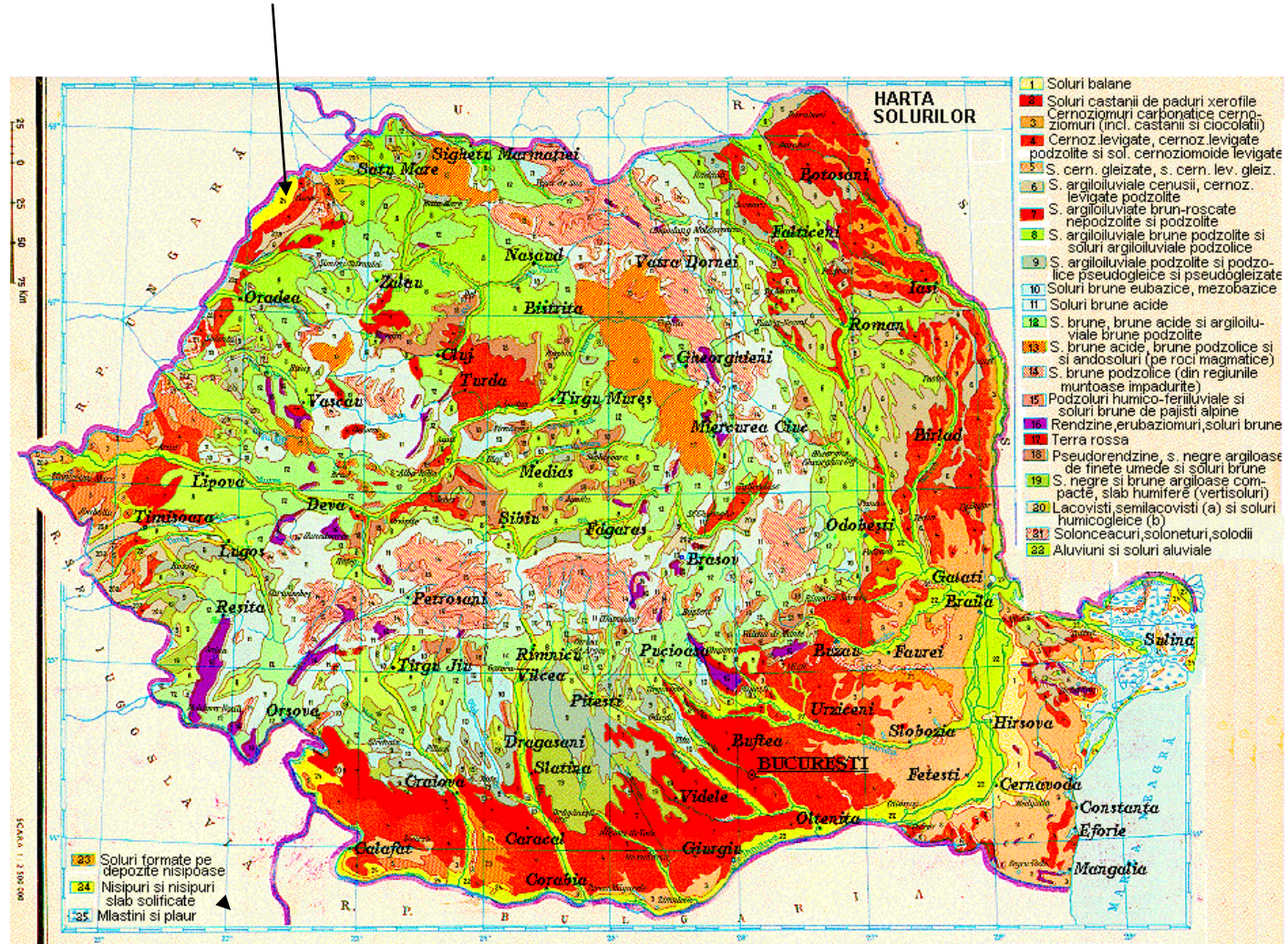


Danube
Delta

Romanian Plain

Valea lui Mihai-Carei Plain

In the Valea lui Mihai-Carei Plain, part of the Western Plain, located along the Hungarian-Romanian border, sands cover over 26,000 ha.



Forest vegetation

a. Beginning

- **1892**: first black locust plantations on 200 ha, 2 x 2 m spacing

b. Nowadays

- Forest vegetation covers **ca. 12% (approx. 3,000 ha)** of overall area of Valea lui Mihai-Carei Plain; **black locust is the main species** (covers over 80% of total area).
- **Other tree species**: black cherry (*Prunus serotina*), Canadian poplars (*Populus x euramericana*), oaks (e.g., pedunculate, northern red, pin), pines (black, Scots), mulberry (*Morus alba*), etc.



Pure Canadian poplar culture

Plantation of northern red oak



Black locust

Introduced on:

- (i) *Low-fertility agricultural lands* or
- (ii) *For replacing low-productive tree species* such as pedunculate oak, small-leaved linden, field maple, and field elm, in order to (a) *prevent wind erosion and sand dune movement* as well as (b) *produce firewood*.

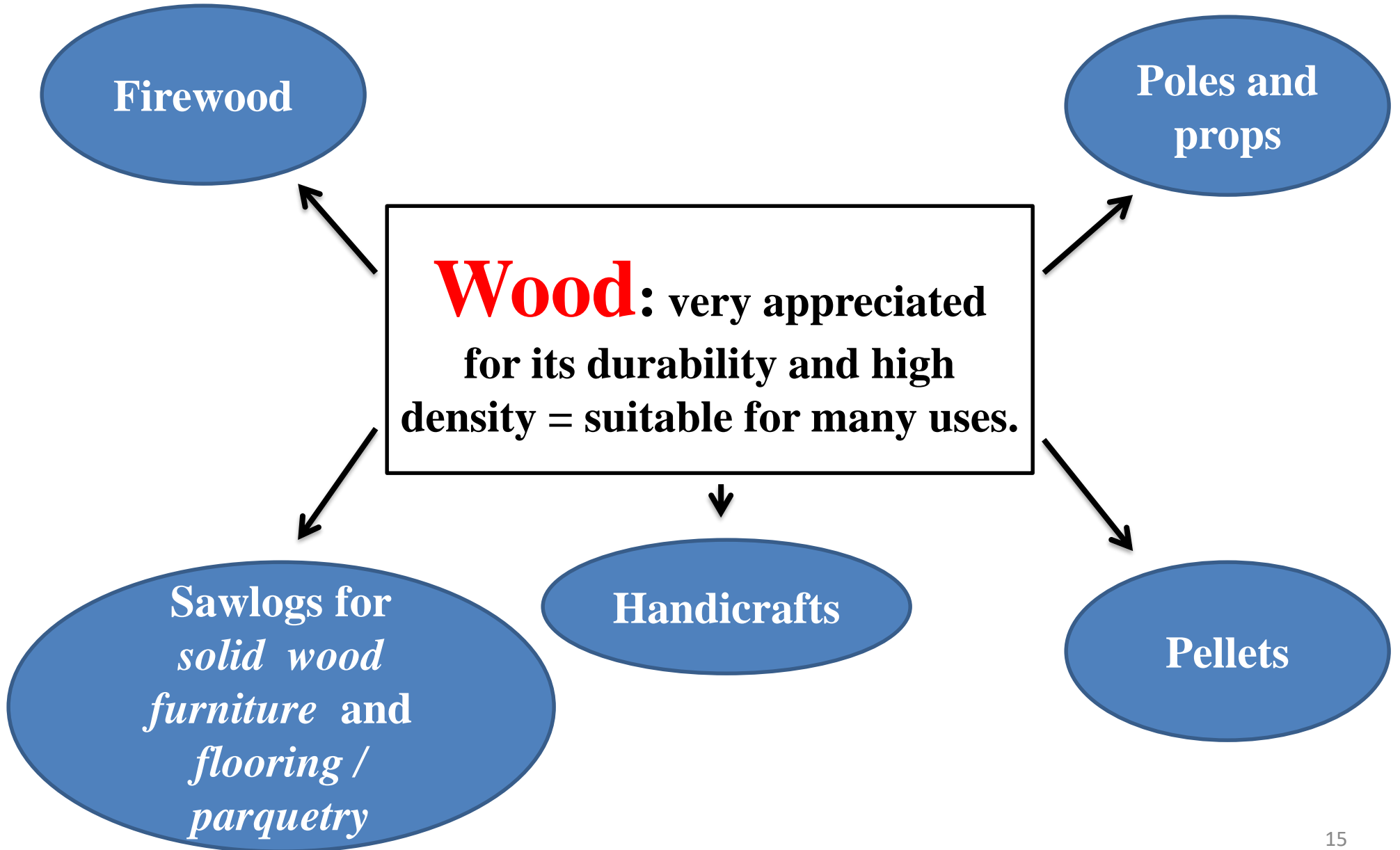
Subsequently treated only as *low coppice*, with a rotation of 20-30 years.

Since the introduction in the north-west of Romania in 1892, *black locust has played a **major and growing role** in the forest-related rural economy of the western counties.*









Firewood

= has always been and still is *the most important product of black locust coppices* from early ages (as low as 10 years), being sold on both *local* and *international* markets.



Vegetable and wine production

- in the NW of Romania
depends on the black locust
coppice stands as *poles*
and props are the most
used and for their (i) low prices
combined with (ii) long-term
outdoor resistance.



Sawlogs

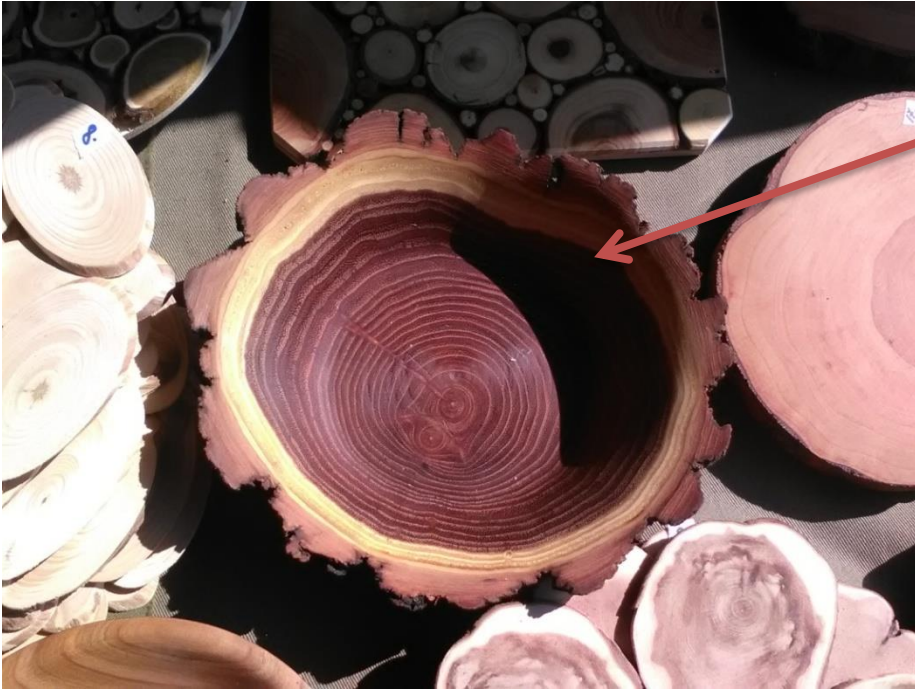
In the NW of RO black locust trees grow quickly and can produce thick (minimum 25 cm) and high quality **sawlogs** at rotations as long as 30-35 years.

Such valuable logs are used for ***solid wood furniture and flooring/parquetry*** in Romania and abroad.



Black locust sawlogs

Hand crafts



Pellets

Since short ago, and on a quite small scale, the use of black locust coppice wood was diversified by an innovative wood product for bio-energy production in the SW of the country: **Rebina *pellets***

Producer: SC Rebina Pellet, 305300 Făget, Timiș County.

Composition: wood of energy willow + black locust wood wastes

Production: 1.7 t/hour

Selling price: 3 euro/15 kg (ca. 200 euro/t)

Markets: Romania, Italy, Serbia, Austria



Honey and bee products

Last but not least, black locust coppice forests of the west of Romania are a major source *of honey and bee products* of major importance for the rural employment, market and economy as such products are used domestically as well as internationally.



BLACK LOCUST

= a **genuine** *multipurpose tree species*

- **Land reclamation**
- **Wood + biomass production.**
- **Raw material** (food industry, biotherapy, apiculture, etc).



Thanks for your attention!