

**PARTICULARITIES RELATING TO THE INSTALLATION OF
FOREST VEGETATION IN AN AREA OF LAND THAT HAS HAD
IN THE PRODUCTION UNIT II ERSIG, FOREST DISTRICT
BOCSA ROMANA, FOREST REGIONAL BOARD CARAȘ-
SEVERIN**

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Abstract

National forest fund area extending from 26,7% to about 40% is a target of the State forests Authority represented by National Forest (R.N.P), for the next two decades.

Conducting afforestation works in the forest of the districts national forest, including those of the Institute of Forest Research and Management (I.C.A.S.) falls in the objective recalled.

As a result, the development of forestry crops on land with forest destination, belonging to various utility is a priority in the current and future activities of the household (Government) forestry.

Decommissioning of the occupied areas with facilities for intensive pheasant, growth of the production Unit II Ersig, Forest District Bocsa Romanian, Forest Regional Board Caraș-Severin, has led to the possibility of installing artificial means of forest crops over an area of about 9.5 hectares. Organizational considerations, these works were carried out in two stages, in the year 2013.

Due to the relatively private working conditions in conjunction with the climate conditions of the past three years, the success of these cultures has not been framed in do you anticipate the design parameters, a number of maintenance work, the present situation-specific.

Key words: national forest fund, national forest fund area, forestry crops, forestry use, afforestation work, maintenance of forest crops.

INTRODUCTION

National forest fund area over the past few centuries underwent two changes that have encumbered unquestionably on the dynamics of forest economy, taking into account the consequences on the economic and environmental point of view.

As is well known, the forest ecosystem of the forest has a high ability to form and maintain an environment of life, namely a capacity of modification of environmental factors and human health improvement effect (Beldeanu, 2004).

Many products and services offered by the forest ecosystem should be as complex as being essential for life, as a result of forest and the continuity of the production forest is essential to society in the past, the same in the present and for the future.

At European level, the average surface of forestry related to the herd population is about 0.30 ha/inhabitant, nationally each inhabitant is about 0.27 hectares (Florescu, Nicolescu, 1996). As a result, the national forest

fund area in comparison with the population ranks below the European average (Mihășan , 2009).

Taking into consideration the above aspects, the national plan has put the issue of extending the area occupied with woods up to about 40 percent of the National Land Fund.

This requirement for forests in our country, represented by the national forest (R.N.P) constitutes a priority objective, of the utmost importance in the following decades.

Starting with the 2011 forest which belongs to every detour to R.N.P. had as its objective an afforestation area of land of one hectare, with their own efforts, finally optimizing the area occupied with forest vegetation.

If for technical reasons, based on a complex analysis shows that some of the forest management activities, are not profitable, they will stop. A similar case is the growth and activity of pheasant in nursery of pheasants in Ersig, from the forest district Bocșa Română, County Forest Administration Caraș Severin, where this activity ceased in 2008.

As a result, its surface Pheasant Farm Ersig was damaged from the specifics of it, to be planted with species appropriate forest resort, according to environmental group recommended by the technical regulations in force.

MATERIAL ȘI METODĂ

Case study has been carried out in the Production Unit II Ersig, Forest District Bocșa Română, Forest Regional Board Caraș-Severin, (Fig1, Fig. 2).



Fig. 1 Case study location (<http://ersig-cs.pe-harta.ro/>)

As research methods were used in bibliographic documentation, observation on the itinerary, the observation in stationary, experimentation and simulation.

Have been studied and analyzed two experimental devices, two areas that formerly were installed Aviary (shelters made of wire mesh) for the growth pheasants. The first surface in the 22 S is 7.5 hectartes and the other in u. ä. 13 V is 2.0 hectares.



Fig.2 Amplacement of pheasants farm in Ersig (<http://ersig-cs.pe-harta.ro/>)

The surface of u.a. 22 S 7.5 ha was covered with afforestation with species of broad-leaved trees, respectively oak (*Quercus robur L.*) and European ash (*Fraxinus excelsior L.*), in the 2011 spring.

The number of seedlings planted per ha is 5,000 pieces, using for this purpose a rectangle shaped device, i.e. the distance between the rows of plants being 2.0 m and the distance between plants on the row of 1.0 m (Fig. 3).

The surface of u.a 13 V area from 2,0 ha was covered with the same installation of forest vegetation, only that they have been performed in the fall, and the holes for planting saplings were made outdoor power with a drilling machine STIHL brand, with an organ capable of active pits of about 70-100 cm depth and with a diameter of 40 cm (Fig. 4).

For the area of 7.5 hectares were covered in spring 2011 works by raising the soil around the seedlings outdoors and grassy vegetation removal overwhelming throughout the area.

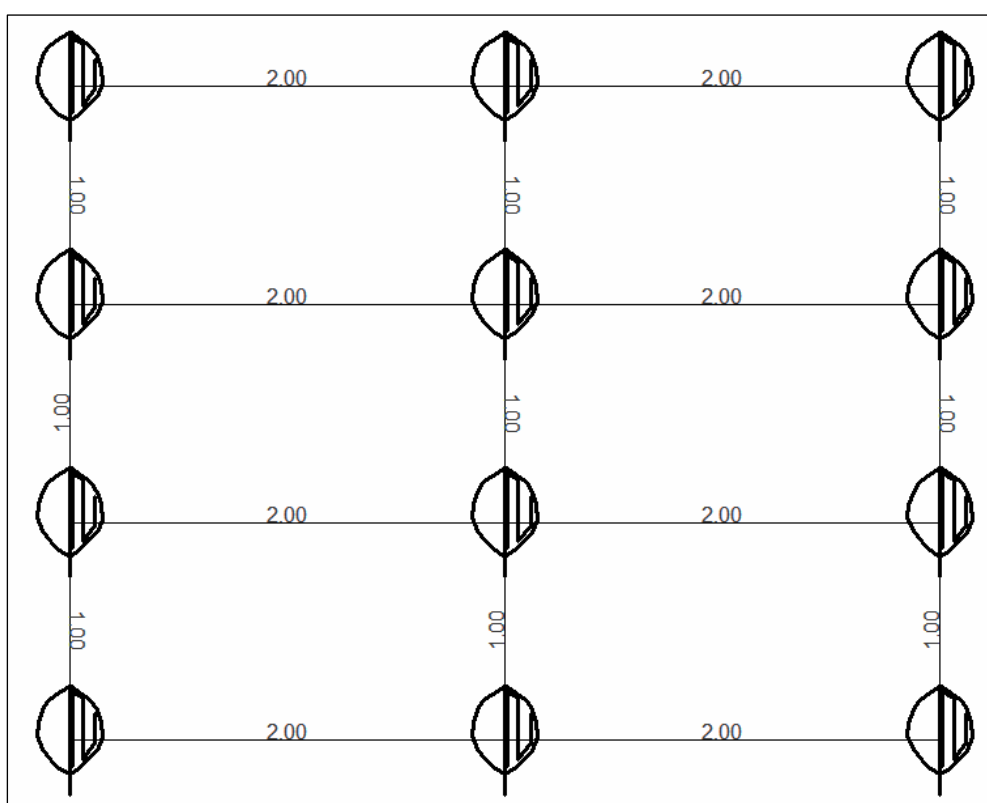


Fig. 3 The geometric location of seedlings in reforestation field formula

For the years 2012 and 2013 have been proposed to execute beating up in the regeneration and invasion vegetation removal.



Motorcycle hand drill

(http://www.stihl.ro/upload/assetmanager/modell_imagefilename/scaled/website/B441K001_p.jpg)



Motor-tool STIHL 300

(http://images8.okr.ro/auctions.v3/215_300/2011/09/09/b/c/66586898029540782417728-1153852-215_300.jpg)

Fig. 4. Logistics used for proposed works



Fig. 5. Hoe (original)



Fig.6. Plantation performed u.a. 22 S in 2011 (original)



The work of loosening of the soil in the terrace around the seedlings were hand made, using hoe (Fig. 5).

For removal of grass invasion vegetation in the area has been used motor-tool STIHL 300, F.S. wired (Fig. 4).



Fig. 7. Seedlings of oak species in u.a. 13 V (original)

RESULTS AND DISCUSSION

Based on data recorded during the annual audit phase II for artificial promotes in the two experimental schemes tables 1 and 2, to evaluate the success of the forest crop in 2011 and installed at the same time have been proposed maintenance work involved, for years to come.

As a result, in the compartment 22 were planted a number of 5,000 seedlings per ha respectively 37500 saplings throughout the area. In 2011 the success of plantation was 50%, in the year 2012 the percentage was 86% in 2013 and only 83% of sapling planted are viable (Table 1).

In the compartment 13 V were planted in the fall of 2011, a total of 5,000 plants per hectare, 10000 seedlings throughout the area.

Annual controlled phase II in the year 2012 the percentage of grip was rated at 55% and in the year 2013, only 87% of the sapling planted are viable (Table 2).

These results are largely due to relatively unfavourable climatic conditions in previous years, question periods with temperatures of approx. 35-40 ° C in summer, combined with the lack of rainfall.

Table 1

Inventariated seedlings at the annually control stage II in u.a. 22S

Crt. Nb.	Surface	Total saplings	2011	2011	2012	2013
0	1	2	3	4	5	6
1	200	100	100	30	88	85
2	200	100	100	48	83	81
3	200	98	98	52	98	91
4	200	99	99	40	91	88
5	200	100	100	40	92	85
6	200	101	101	36	94	90
7	200	100	100	100	80	80
8	200	102	102	90	82	81
9	200	100	100	81	85	83
10	200	97	97	82	83	81
11	200	100	100	30	84	81
12	200	100	100	30	85	83
13	200	103	103	35	80	79
14	200	100	100	24	82	81
15	200	100	100	36	83	80
Total	3000	1500	1500	754	1290	1249
Percentage		100%	100%	50%	86%	83%
Total for 1,0 ha		5000	5000	2500	4300	4163
Total for 7,5 ha		37500	37500	18750	32250	31225

In order to be able to get a percentage of the optimum grip for sapling planted it is necessary compleare enable artificial regeneration, which will lead to achieving massive status in an optimal period, with serious implications on aspects of ecological and financial order.

A look that is required for the design of maintenance of installed, consists in linking these interventions with specific status quo of artificial regeneration and climatic conditions.

As a result, the work of removing vegetation, grassy and Woody overwhelming required for good growth and development of forestry seedlings planted is optimal to be executed during the vegetation season start and/or end, so as not to sunstroke predisposes to weed exemplars.

Due to lack of rainfall related to very high temperatures during summer, a large number of seedlings drying process occurs, and in the following spring is reported the presence of a new shoot of root remaining still-active process called natural cutting-back.

Table 2

Inventariated seedlings at the annually stage control II in u.a. 13V

Crt. Nb.	Surface	Total saplings	2011	2012	2013
0	1	2	3	4	5
1	100	58	58	32	46
2	100	46	46	40	41
3	100	48	48	25	44
4	100	51	51	26	30
5	100	45	45	21	43
6	100	48	48	24	45
7	100	55	55	30	41
8	100	52	52	31	40
9	100	46	46	28	46
10	100	47	47	35	44
11	100	49	49	25	43
12	100	52	52	27	48
13	100	50	50	26	48
14	100	50	50	26	48
15	100	49	49	25	44
16	100	54	54	17	43
Total	1600	800	800	438	694
Percentage		100%	100%	55%	87%
Total for 1,0 ha		5000	5000	2750	4350
Total for 7,5 ha		10000	10000	5500	8700

Regarding the number of interventions, given the fact that the funds available for forestry work are relatively limited, it is usually a single proposed intervention, which does not tally with the reality on the ground is good, the second intervention, which is required to run the fall is mostly abandoned (Fig. 6, Fig.7).

Accordingly, where the grass and woody vegetation (for pioneer species) has increased the habitat has actively developed, under the impact of the snow during the winter can bring major damage to the seedlings planted.

To optimize the process of interpreting the results obtained and for the simulation of forest crop assessments artificially installed, you can use a series of mathematical algorithms (Bica, Curilă, Curilă, 2013, 2012, 2011, 2006), being necessary a volume covering the ground.

CONCLUSIONS

The installation of forest vegetation on artificially ensure unquestionable a number of advantages concerning the composition and number of the future stand, the Group of species, with direct implications over the period necessary to carry out the massive stage.

The success of forest crops provide the reliability and professionalism of which was exhibited on the occasion of the installation involved, provided that the seed potatoes (sapling forest) used to be of quality, in accordance with the technical standards and obvious climatic conditions should be optimal.

Considering the fact that in the past 5 years there has been a series of major changes to climatic conditions (temperatures, excess and/or deficit of precipitation), it is obvious that the success of forestry crops, especially those artificial was seriously affected, a number of additional interventions (additions, overwhelming vegetation removal, reviewing crop), which have as a result an additional financial effort and increase the period necessary to achieve solid stage.

Sapling forest use in some situations do not match in size by technical rules, due to the fact that it follows the movement of seed potatoes within the forest belonging to the national forest, which detract from the indisputable success of plantations.

In a situation where we have particular vegetation conditions (on account), if the surfaces on which it has worked, it is necessary to pheasants farm Ersig preparedness with a view to placing them in forest vegetation in optimum conditions, i.e. a slaughter at about 40-50 cm depth and possibly conducting asolamente with species of the Fabaceae Family.

The number of interventions in the case of removal of grassy and Woody overwhelming vegetation necessary to satisfy the requirements of objective reality on the ground, otherwise the sapling planted can be eliminated or be affected by the process of natural cutting-back.

Achievement of mechanized installation and maintenance of forestry crops, leading to a higher efficiency in terms of technically and economically feasible, established itself in the future as required.

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