RESEARCH TO KNOWLEDGE OF SPECIES COLEOPTERE RAPESEED CROP

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Abstract: *There was a presence of 42 species coleoptere two variants, of which 21 species were common. The species most commonly collected and the largest number of specimens collected were: Pterostichus cupreus L., Brachynus crepitans L., Phyllotreta atra F, Amara eurynata Harpalus distinguendus Duft., Cicindela Germany Phyllotreta nemorum L. and L. Observations were made in 2008 in a culture of rape Rotbav town, Brasov County. To collect material traps were used to soil type Barber, who were placed in number 12, in two versions: - V1 - rape samulastră from where there was no chemical treatment to pathogens and pests; -V2 - rape cultivation, where there were usually treatments to combat pathogens and pests. In June, the two variants were made every 4 collection of material collected in traps at the following date: 3.06.2008, 9.06.2008, 17.06.2008 and 14.06.208. entomological collection of material were retained species coleoptere which were then determined.*

Key words: *coleoptere,knowledge, rape crops, pests*

INTRODUCTION

In Romania, the total losses from the attack of pathogens, pests and weeds is raised annually at 2.5-3 billion dollars, that is several times greater than the amount required for the purchase of plant protection products, including the cost of treatment works for performance . As with other cultures and the culture of rape is attacked by a number of pests, causing major damage. Culture autumnal rape charge large areas especially in areas with lower temperature, where replaced sunflower (Poland, Germany, England, Scandinavian countries etc.. (ARION, 1957; BALACHOWSCHI, MESNIL, 1935-1936, KNECHTEL, 1951; MANOLACHE and al., 1946-1957, 1969). In our country, although has a long tradition, being cultivated since the first decades of the last century, this culture recorded in recent years reveniment strong, so now some areas exceeding 100,000 ha annually (BAICU, 1982, PANINI, 1951; BARBULESCU et al., 1993, 2002; BOGULEANU, 1980; HULEA et al. 1975; RADULESCU et al., 1973, SAVULESCU et al., 1982; SIN, 2000; SANDRU, 1996). Follow the progress achieved in the process of improvement by obtaining varieties whose oil content to 40% and protein in skimmed şroturile, 40% and with a low erucic acid, rapeseed has become from an industrial plant forage, an important plant food. Both because of its many industrial uses, but many agronomic advantages, rape is considered a valuable crop, easily established and marketed, but also some problems with protection, particularly caused by pests (MANOLACHE, BOGULEANU, 1978; PAULIAN, ILIESCU, 1973; PAULIAN et al., 1974; PERJU et al., 1976, POPOV 2003).

MATERIAL AND METHOD

Observations were made in 2008 in a culture rape of Rotbav town, Brasov County. To collect material were used to trap soil Barber, who were placed in number 12 in two variants:

V1 - samulastră from rape where there was no chemical treatment or the seed or during the growing season.

V2 - rape cultivation, where they applied all links of the technology culture of the plant, harvesting the material from traps was done during the month of June the number 4 in

both, the following dates: 3.06.2008, 9.06.2008, 14.06.208 and 17.06.2008. Of the material collected were retained species coleoptere which were then kept for a period of time in an alcohol concentration of about 12%. Following the identification of species coleoptere has reached the following results.

RESULTS AND DISCUSSIONS

The results of untreated variant (Table 1), each of the 4 entomological collection of the material, the situation is as follows:

- Take the collection, which was made on 3.06.2008 were collected from 134 specimens belonging to coleoptere numnăr one of the 22 species. The species with the highest number of specimens collected were: Pterostichus cupreus L. (32 copies), Brachynus crepitans L. (38 copies), Harpalus distinguendus Duft. (27 copies) and L. Ophonus Azureus (7 copies). A total of 7 species had a single copy. They were Gastroidea polygone L. Ceuthorrhynchus pallinarius, SITON lineatus, Baris chlorizaus, Meligethes aeneus F., Phyllotreta atra F., cockchafer violaceus L., Longitarsus talidus F., F. Tanymechus palliatus and Microlestes maurus.

- The collection II, which was made on 9.06.2008, were collected in total 64 specimens belonging to a number of 13 species. The species with the highest number of specimens collected were Brachynus crepitans L. (28 specimens), Harpalus distinguendus Duft (9 copies) and Phyllotreta atra F. (6 copies). 4 A number of species had a single copy. They were Psilliodes chrysocephala L. Pseudophonus rufipes De Geer., Harpalus laevicollis and Amara familiaris Duft.

- The collection of III made on 17.06.2008, were collected from 73 specimens belonging to coleoptere a number of 14 species. The largest number of copies they have had species: Phyllotreta atra F. (41 copies), Pterostichus cupreus L. (13 copies) and Phyllotreta nemorum L. (5 copies). Other species had between 1 and 2 copies.

- The collection IV, which was conducted on 24.06.2008, were collected 101 specimens belonging to a number of 18 species. The species with the highest number of specimens collected were: Pterostichus cupreus L. (42 copies), Cicindela L. Germany (15 copies); Bracynus crepitans L. (13 copies); Phyllotreta atra F. (8 copies). The other species had between 1 and 4 copies.

When treated variant (Table 2) to each of the 4 entomological collection of the material, the situation is as follows:

- Take the collection, which was made on 3.06.2008 were collected 281 samples of coleoptere belonging to a number of 17 species. The biggest number of collected specimens they had species: Pterostichus cupreus (178 copies), Brachynus crepitans (51 copies), Amara eurynata (13 copies) Harpalus aeneus (10 copies) and F. Ophonus Azureus (7 copies). The other species had between 1 and 5 copies.

- The collection II, which was made on 9.06.2008, were collected in total 235 specimens belonging to a number of 24 species. The species with the highest number of specimens collected were Pterostychus cupreus L. (124 copies), Phyllotreta atra (37 copies) and Brachynus crepitans L. (19 copies). The other species had between 1 and 7 copies.

- The harvesting III, which was conducted on 17.06.2008, were collected 169 samples of coleoptere belonging to 14 species. The largest number of copies they have had species: Pterostichus cupreus L. (99 copies), Amara eurynata (27 copies) and Phyllotreta nemorum L. (9 copies)

- the collection IV, which was conducted on by 24.06.2008, were collected 50 samples of coleoptere belonging to a number of 14 species. The species with the highest

number of specimens collected were: Pterostichus cupreus L. (16 copies) and Amara eurynata (12 copies).

A total of 7 species had a single copy. Two variants (untreated and treated) (Table 3) during the observations were collected copies of coleoptere belonging to a number of 42 species. Of these, a total of 21 species were present in both. In variant 1 were collected 31 species while in variant II were collected from 34 species.

Table 3

Structure and abundance of collected species at coleoptere three harvesting and the two variants

No.	Species Name	Variant	
		untreated	Treated
1	Harpalus distinguendus Duft.	40	17
2	Gastroidea polygoni L.	1	-
3	Ceuthorrynchus pollinarius	1	-
4	Sitona lineatus L.	1	1
5	Baris chlorizans Germ.	1	8
6	Pterostichus cupreus L.	91	417
7	Amara eurynata Panz	5	59
8	Ophonus azureus F.	7	9
9	Harpalus laevicollis	7	2
10	Bembidion properans Stef.	2	3
11	Brachynus crepitans L.	79	75
12	Pterostichus vulgaris L.	7	7
13	Meligethes aeneus F.	3	2
14	Psylliodes chrysocephala L.	4	3
15	Phyllotreta atra F.	56	45
16	Staphylinis spp.	3	-
17	Amara familiaris Duft.	4	1
18	Opatrum sabulosum L.	3	2
19	Carabus violaceus L.	2	-
20	Longitarsus talidus F.	3	2
21	Tanymecus palliatus F.	2	3
22	Microlestes maurus	1	-
23	Cicindella germanica L.	22	7
24	Anisodactylus signatus Panz.	2	-
25	Pseudophonus rufipes De Geer	3	-
26	Phyllotreta nemorum L.	10	17
27	Dermestris frischi Kugel	5	-
28	Dolichus chalensis Schall	2	-
29	Athous sacheri	2	1
30	Brachinus prophia Serv.	1	-
31	Bothynoderes punctiventris	1	-
32	Silpha carinata	-	2
33	Tanymecus dilaticolis	-	2
34	Amara crenata Dejean	-	7
35	Leptinotarsa decemlineata Say	-	1
36	Otiorrhynchus raucus F.	-	2
37	Pterostichus nigrita F.	-	5
38	Apion violaceus Kirby	-	2
39	Harpalus calceatus Dej.	-	2
40	Linus ascari	-	5
41	Dorcadium fulvum	-	1
42	Amara apricana Payk	-	1
Total		372	735

The species with the highest number of specimens collected and were the most common, the two variants were (Table 4): Pterostychus cupreus L. with 91 copies of the variant and 75 untreated specimens from treated variant, Amara eurynota 5 specimens from untreated and 59 variant copies of the variant treated: Harpalus distinguendus Duft., 40 copies of the variant and 17 untreated specimens from treated variant; Cicindela L. Germany, with 22 copies of the variant untreated and 7 copies in variant treated; Phyllotreta nemorum L., with 10 copies of the variant and 17 untreated specimens from treated variant.

Table 4

Coleoptere abundance of species most commonly found in crops of rape in the two variants

No.	**Species Name**	Variant	
		untreated	treated
1	Pterostichus cupreus L.	91	417
2	Brachynus crepitans L.	79	75
3	Phyllotreta atra F.	56	45
4	Amara eurynata Panz	5	59
5	Harpalus distinguendus Duft.	40	17
6	Cicindella germanica L.	22	7
7	Phyllotreta nemorum L.	10	17

It must be emphasized that, contrary to expectations, the number of copies to be treated variant is sometimes higher than the untreated variant, sometimes there are very large differences, as when species Pterostichus cupreus L. species or if Amara eurynata canvases.

CONCLUSIONS

1. 2008 June 4 at the entomological collection of the material (3.06, 9.06, 17.06, 24.06) were collected 372 samples of untreated variant coleoptere to 735 copies and copies in variant treated.

2. In untreated variant, the 372 copies of coleoptere belong to a number of 31 species while in the variant treated coleoptere of 735 specimens belonging to 34 species.

3. A total of 21 species of coleoptere were common, being present in both.

4. The species with the highest number of specimens collected were: Pterostichus cupreus L., Brachynus crepitans L., Phyllotreta atra F., Amara eurynata canvases., Harpalus distinguendus Duft., Cicindela Germany L. and Phyllotreta nemorum L.

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