

# THE STRUCTURE OF LAMB AND MUTTON DISHES IN THE FOODSERVICE INDUSTRY OF BELGRADE

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**ABSTRACT:** *The structure of lamb and mutton dishes in foodservice facilities can be observed from two aspects. One is according to the order of dishes within an offer, and the other one is according to the manner of thermal treatment of meat. The structure of lamb and mutton dishes was surveyed in eight (8) foodservice facilities in Belgrade, which are: the "Careva Čuprija" restaurant, the "Milošev Konak", the "Suri", the "Uzelac", the "Čobanov Odmor", the "Savić", the "Mlinarev San", the "Gospodarska Mehana". The structure of dishes according to groups of dishes in a menu is limited to a small number of cold starters, broths, cooked dishes and roasts. The structure of dishes depending on the thermal treatment varied in the surveyed foodservice facilities in favour of dishes prepared by a dry thermal treatment – roasting, and dishes prepared by combination thermal treatment – braising. When establishing the structure of lamb and mutton dishes, calculations of the portion of the stated dishes in groups of dishes in a menu, as well as the percentage of the portion of thermal treatment of these dishes in menu cards and menus of the above mentioned facilities were done. All the results were processed statistically.*

**Keywords:** *structure, lamb and mutton, foodservice facilities in Belgrade.*

## INTRODUCTION

Lamb and mutton, when compared with other types of meat, are consumed in small quantities in Serbia. However, many consumers who do not prepare this kind of meat at home gladly order it in restaurants. Lamb and mutton dishes are an indispensable part of food offers in local cuisine restaurants, which are numerous in Belgrade, as well as in restaurants where this type of dish is prepared only on guests' demand and is not found in the regular offer. In menus and meals of national restaurants, mostly traditionally

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prepared dishes are present, and in international cuisine restaurants, a la carte dishes, as well as cold dishes are often found.

The structure or participation of lamb and mutton dishes, in offers of foodservice facilities in Belgrade, is viewed from two aspects. The first one is according to the order of dishes in an offer, and the other is according to the manner of thermal treatment of meat.

The survey was conducted in eight foodservice facilities in Belgrade. Specifically, those are the following restaurants: the “Careva Ćuprija”; the “Milošev Konak”; the “Suri”; the “Uzelac”; the “Ćobanov Odmor”; the “Savić”; the “Mlinarev San” and the “Gospodarska Mehana”.

In the process of determining the structure of lamb and mutton dishes, the percentage of the share that thermal treatment of the stated kind of meat has in menus of the above mentioned restaurants was calculated.

The structure of dishes according to the group of dishes limited to a small number of cold starters, broths, cooked dishes and roasts depending on the thermal treatment method, varied in favour of dishes prepared with dry heat – roasting, and dishes prepared by using a combination thermal treatment – braising.

## THE MOST FAMOUS LAMB AND MUTTON MEAT DISHES IN OFFERS

Meat of sheep as livestock, according to Regulations concerning the quality of livestock, poultry and game meat (“Sl. list SFRY” no. 34/74; 26/75; 13/78 – regulation; 1/81 regulation; 2/85 regulation), is placed in the market as:

1. lamb – suckling (baby lamb),
2. lamb – hogget and
3. mutton.

The term **suckling lamb** meat refers to meat obtained from lambs from 3 weeks to 3 months old. The term **hogget** refers to meat from lambs from 3 to 9 months old. The term **mutton** refers to meat obtained from sheep (rams and ewes) older than 9 months (Karan-Djurdjić, 1980; Savić and Milosavljević, 1983; Popov-Raljić et al, 1994).

Food offers in foodservice industry represent one of the most important instruments of communication with a guest and selling food. They directly influence consumer decisions because they choose what dish to consume based on the offer.

By forms of food offer in hospitality and gastronomy we mean a written, printed, graphic or recorded document of a foodservice facility offer (Vukić and Portić, 2009).

Forms of food offer in hospitality are: menus, pricelists, catalogues and samplings.

Lamb and mutton dishes, as well as other meat dishes, are grouped in the following order:

1. Cold starters made of mutton: Boned smoked mutton, Mutton prosciutto.
2. Lamb soups and broths: Serbian lamb broth, Lamb ragout broth.
3. Hot starters made of lamb: Lamb cabbage rolls in caul with sour milk, Lamb risotto;

4. Lamb and mutton cooked dishes: Lamb cooked with vegetables, Lamb cooked in milk, Lamb hooves in Provencal sauce, Vineyard broth, Kapama, Lamb pörkölt, lamb stew with potatoes, mutton stew in a kettle with dumplings, Serbian cabbage with mutton, Seakale with dried mutton, sauerkraut with smoked mutton, Lamb ajmokac, Lamb pilaf, Lamb terrine, Braised lamb hooves with lentil, Larded and braised leg of mutton with vegetables.
5. Lamb roasts: Baby lamb on the spit, Broiled roast lamb, Rolled roast lamb, Roasted lamb crown, Roasted lamb chop.
6. Dishes for cold lamb buffet: Stuffed lamb, Lamb backstrap nicely looking.
7. Lamb and mutton a la carte dishes: Mutton fillet with “Marsala” sauce, Mutton medallion on the skewer, Mutton cutlet with piquant sauce, Mutton cutlet – “Diable” sauce, Fillet of lamb Paris style, Lamb kebab with onion, Russian shaslik, Caucasian shaslik, Shish kebab, Lamb cutlets with almond sauce, Lamb cutlets “Café d’ Paris” with butter, Lamb cutlet with herbs and cheese.
8. Grilled lamb and mutton dishes: Grilled mutton fillet, Grilled mutton chop, Grilled lamb backstrap, Grilled mutton burger, Grilled mutton cutlet.
9. Cocktail lamb snack: Lamb “Saty”, Lamb chevaps with courgettes.

## THERMAL PROCESSING OF LAMB AND MUTTON

Heat is a form of energy. Heat or thermal treatment of foodstuffs is an energy transfer from the heat source to the foodstuff (Popov-Raljić, 1999). Energy affects food by changing its molecular structure, texture, taste, smell and appearance. By exposing a foodstuff to a heat source, unwanted microorganisms are destroyed as well, which facilitates the food intake in the organism and its digestion (Labensky and Hause, 1999).

When a substance is heated, its molecules have absorbed energy, which causes them to vibrate rapidly, spread and collide with each other. By colliding, they transfer energy from one to another. The faster molecules in substances move, the higher the temperature gets. The same thing happens whether the substance is air, water or aluminium dish.

Thermal energy can be transferred in four ways by:

- conduction,
- convection,
- radiation and
- induction.

Which thermal treatment will be used to process a foodstuff depends on its basic characteristics. In the process of thermal treatment of lamb and mutton, almost all techniques are used, depending on the dish being prepared, the part of meat, as well as the age of the animal used.

For the preparation of cooked dishes and broths, combination techniques of thermal treatment or boiling in water are used. Roasts are prepared by roasting in an oven,

on the spit or, traditionally, broiling in a closed clay pot. Grill is usually used to prepare dishes made of the highest quality parts of lamb such as the chop or cutlets.

During the survey of 8 Belgrade restaurants, it was established that the following thermal processes are used to prepare lamb and mutton dishes:

1. Thermal treatment in a dry environment: roasting on the spit, roasting in an oven, grilling, drying.
2. Thermal treatment in a wet environment:
  - a) Thermal treatment in water: parboiling in water, cooking in water (boiling, simmering, cooking), poaching, cooking and steam parboiling.
  - b) Thermal treatment in fat: sautéing, frying, breading, parboiling in fat
3. Combination thermal processing: braising, au gratin, braising until golden brown (Maincent-Morel, 2003)

## RESULTS

Eight foodservice facilities offering lamb and mutton dishes have been analyzed in Belgrade. The survey has showed that the offer of dishes made of this kind of meat is focused on certain types of foodservice facilities with national or local cuisine.

The structure of lamb and mutton dishes has been surveyed in two ways. The first is the structure of dishes according to groups of dishes in a menu. The second one is the structure of dishes according to the type of thermal treatment applied in the preparation process.

The survey has shown that the offer of this type of meat dishes is focused on certain types of foodservice facilities which provide food and beverage services, i.e. on facilities with a national, local cuisine.

As shown in table 1, the presence of a dish in forms of offer for the analysis of the selected foodservice facilities is small if it is compared with the presence of other animal meat dishes.

Of 504 researched dishes in groups of dishes where a target group of dishes appears, only 9.5% of dishes are prepared with lamb and mutton. The variety is also limited because the average comes down to a few uniform methods of preparation.

**Table 1.** Statistical data of the analysis of the presence of lamb and mutton meat dishes of in offers in Belgrade restaurants

Total number of analyzed dishes		504
	Number of lamb and mutton dishes	Average of lamb and mutton dishes
Total number of lamb and mutton dishes	48	9.5%

## THE STRUCTURE OF LAMB AND MUTTON DISHES IN MENUS OF FOODSERVICE FACILITIES IN BELGRADE

The structure of lamb and mutton dishes in the researched foodservice facilities in Belgrade varies, depending on the category and business policy of a facility. In average, the offer of these dishes is very uniform, and the number of dishes compared to the number of dishes made of different kind of meat is extremely small. The offer is mostly reduced to cooked dishes and lamb roasts.

Menus of Belgrade restaurants offer the following dishes:

- Cold mutton starters: “Boned smoked mutton”, “Mutton prosciutto”.
- Lamb soups – broths: “Lamb broth”, “Serbian lamb broth”, “Shepherd’s broth”
- Hot lamb starters: “Lamb cabbage rolls in caul with sour milk”; “Offals with sour milk”, “Lamb cabbage rolls in kaymak”;
- Cooked lamb and mutton dishes: “Cooked lamb”, “Sauerkraut with boned smoked mutton”, “Lamb hooves in milk and vegetables”, “Lamb hooves in Provencal sauce”, “Bosnian hotpot with mutton”, “Lamb from heavenly chairs”, “Braised lamb”, “Boiled lamb in vegetables”, “Lamb kapama”, “Sautéed lamb liver”, “Lamb tripe in drippings”.
- Lamb roasts: “Lamb on the spit”, “Lamb broiled in a closed clay pot”, “Lamb broiled in a closed clay pot in forgotten fire”, “Roast head of lamb”, “Rolled lamb”, “Baby lamb”.
- A la carte lamb dishes: “Lamb chop in Provencal sauce”, “Grilled lamb chopped”.

In the researched restaurants, a large number of dishes have the same of similar names but their sensory properties (chiefly smell and taste), the way of serving and the presentation are different.

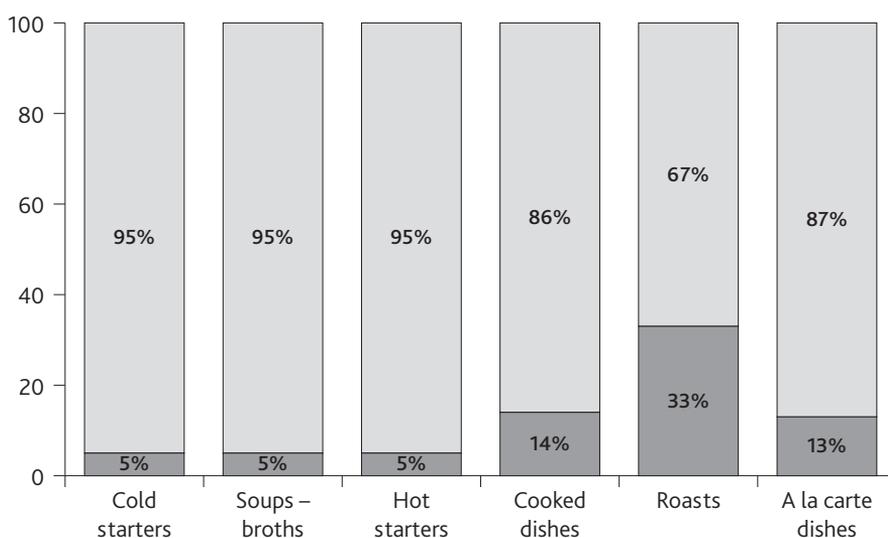
As shown in table 2, a group of dishes which is most present in offers is cooked lamb and mutton dishes, which are 17 of 35.4% of 48 totally surveyed dishes. The next numerous group of dishes consists of lamb roasts, which are 16 in the surveyed offers, or 33.35% of the total number of dishes. There are 8 soups and broths noted in the offers of all the restaurants, which makes 16,7% of the total number of surveyed dishes. There are 3 or 6.2% of hot starters, and cold starters are the fewest in number (2 or 4.2%) together with a la carte dishes (2 or 4.2%), which is the result of insufficient market supply with fabricated lamb and mutton.

The “Careva Ćuprija” restaurant in Belgrade is a national cuisine restaurant and presents one of Belgrade monuments. The wide range of dishes offered in this restaurant consists of dishes with a long tradition of professional hospitality. Lamb and mutton dishes make 16% of the total offer of the restaurant. As we can see in the chart 1, a group of dishes – roasts is the most numerous, because 33% of all roasts is roast lamb, then in terms of size of groups of dishes there are cooked dishes, where lamb dishes make 14% of the offer, together with a la carte dishes 13%, soups and broths 5%, cold and hot starters 5% each.

Of all analyzed menus, this restaurant has the most varied offer and is the only one with a la carte dishes made with this kind of meat in the menu.

**Table 2.** Statistical data showing the presence of lamb and mutton meat dishes in groups of dishes in menus of the surveyed restaurants

TOTAL NUMBER OF LAMB AND MUTTON DISHES		48
Analyzed groups of dishes in menus	Number of lamb and mutton dishes	Lamb and mutton dishes in groups of dishes in menus, in average
Cold mutton starters	2	4.2%
Lamb soups – broths	8	16.7%
Warm lamb starters	3	6.2%
Cooked lamb and mutton dishes	17	35.4%
Lamb roasts	16	33.3%
A la carte lamb dishes	2	4.2%



**Chart 1.** The ratio of lamb and mutton dishes in the "Careva Ćuprija" restaurant

The "Milošev Konak" restaurant in Belgrade dates back from 1834 and is situated in Topčiderski park. In the supreme offer of national and international dishes, lamb and mutton dishes are present with about 7% of the total offer. The most numerous group of dishes are roasts with 34% of the complete offer. Cooked dishes are present with 27%, soups and broths with 5% of the complete offer, whereas there are 5% of hot starters (Chart 2).

The "Suri" ethnic house in Belgrade is an original representative of mountain Kopaonik gastronomy. The offer of this restaurant, which is the embodiment of one people's gastronomy, contains 192 dishes, of which 6% are lamb and mutton dishes. Lamb roasts make 33% of the complete offer, which makes them the most numerous group. There are 27% of cooked dishes, 14% of hot starters, and only 5% of soups and broths when compared to the given group of dishes. There are no cold starters and a la carte lamb and mutton dishes in the "Suri" restaurant offer.

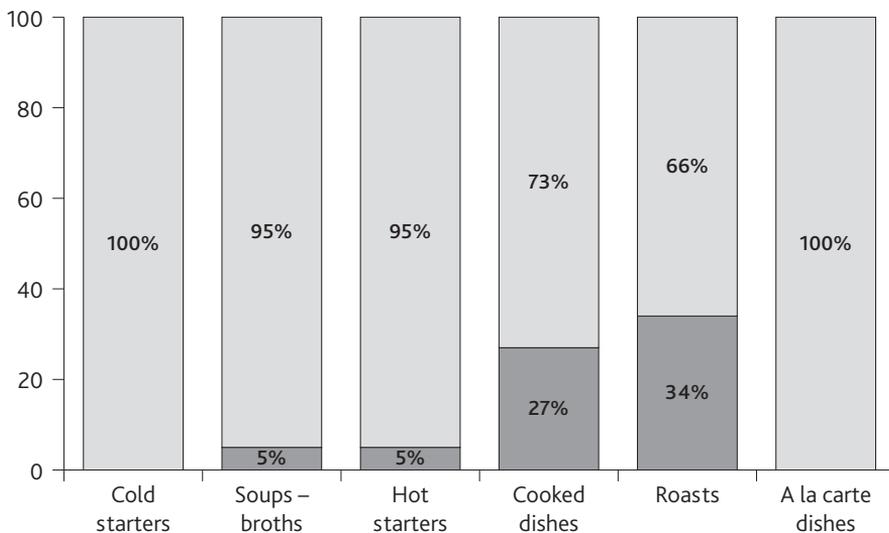


Chart 2 . The ratio of lamb and mutton dishes in the "Milošev Konak" restaurant

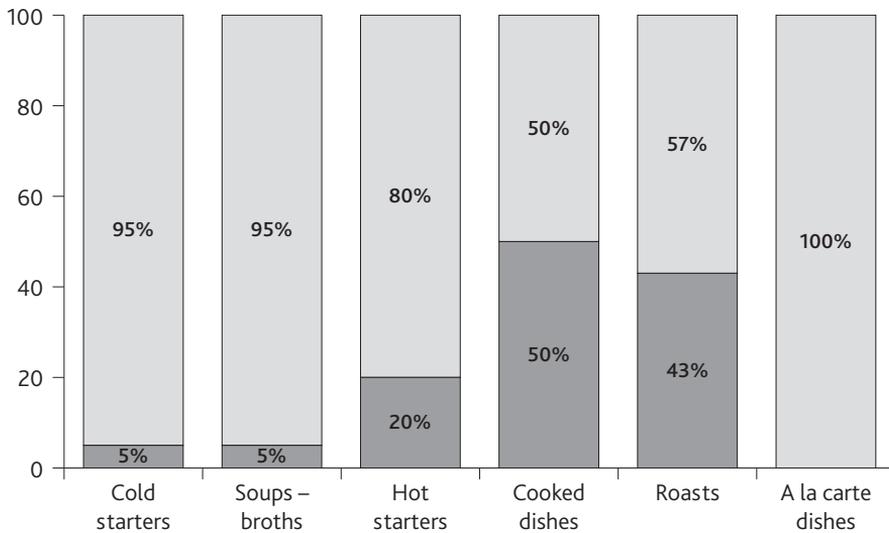
The menu of the "Čobanov Odmor" restaurant offers Serbian fast food to Belgraders and their guests. This restaurant offers traditional food tailored to fast living, in the form of catering services. (*Instead of hamburgers, you can eat rolled lamb with kaymak in a bun*). The local cuisine is also adjusted to small finger food snacks which go hand in hand with the world trends.

The staff of this restaurant is not unfamiliar with *slow cooking* either. Considering the business orientation, the largest number of lamb and mutton dishes is present with 7.3%, and these are mostly – roasts with 38% of offered dishes. There are 12% of cooked lamb and mutton dishes in relation to other kinds of meat. There are 5% of soups and broths offered, whereas a la carte dishes and hot and cold starters are not offered in this restaurant.

When Belgraders want to eat good lamb, they go to the "Uzelac" restaurant, which is famous far and wide for the best roast lamb on the spit as well as other dishes made of this kind of meat. The offer in the menu is not limited only to this kind of meat; therefore, lamb and mutton dishes make 17% of the complete offer. As we can see in the chart 3 the largest group of dishes is cooked dishes with 50% of lamb and mutton dishes. 43% of all roasts are lamb and mutton dishes. Hot starters make 20%, and soups and broths, as well as cold starters make 5% each in relation to the corresponding group. Lamb and mutton a la carte dishes are not present in this restaurant's offer.

The "Savić" restaurant in Belgrade only offers lamb broths and lamb roasted on the spit, which is about 2% of the complete offer. Roast lamb makes 33%, and soups and broths 5% of the complete offer of the restaurant.

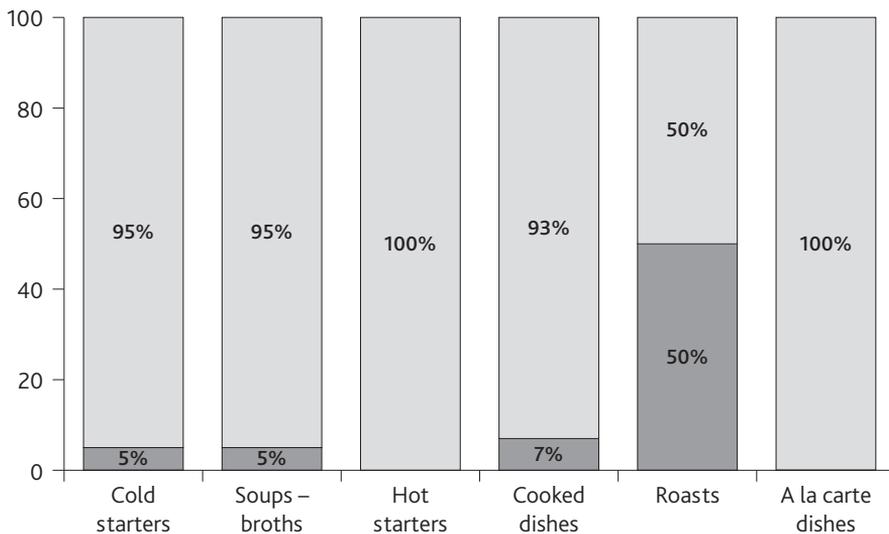
The "Mlinarev San" restaurant in Belgrade offers old dishes from Raska district. Lamb and mutton dishes make 8% of the restaurant offer, of which roasts are mostly present. The chart 4 shows that roasts are the most present group of lamb dishes, which is 50% compared to other meat roasts. Cooked lamb and mutton dishes make 7% of the



**Chart 3.** The ratio of lamb and mutton dishes the “Uzelac” restaurant

total offer of this type of dishes, and soups and broths, as well as cold starters each make 5% in relation to the corresponding group of dishes. Hot starters and a la carte dishes are not listed in the menu of the restaurant.

The “Gospodarska Mehana” restaurant in Belgrade offers traditional local cuisine. Lamb and mutton dishes make 5% of the total offer. The menu of the restaurant contains 29% of lamb roasts, which makes them the most numerous group of dishes of the surveyed meat kind. Cooked lamb and mutton dishes are less numerous and make 14%.



**Chart 4.** The ratio of lamb and mutton dishes in the “Mlinarev San” restaurant

Soups and broths are only 5% present in relation to others in the offer. There are not any cold and hot starters or a la carte dishes in the offer of this restaurant.

In average, lamb and mutton dishes appear 5 to 6 times in each of the analyzed menus. However, this number varies significantly depending on the restaurant type; therefore, in the menu and daily offers of the “Careva Ćuprija” restaurant there are 12 dishes in total, and in the “Savić” restaurant offers, there are only 2. A few types of the same or similar dishes appear in all menus of the analyzed restaurants.

## THE STRUCTURE OF LAMB AND MUTTON DISHES ACCORDING TO THE THERMAL TREATMENT

By observing the offered dishes, we note that types of thermal treatment are the same in all observed restaurants. Variations are small and the thermal treatment is mostly reduced to a dry (roasts) or combined (braising) environment.

From the total of 46 dishes found in the analyzed menus of foodservice facilities in Belgrade, 15 or 33% were prepared by using dry heat (the dish that appeared most often was lamb roasted on the spit), 12 or 26% were treated in a wet environment (broths and lamb cooked in vegetables or lamb hooves prepared in different ways), and 19 or 41% were treated in a combination environment (preparation of various cooked dishes that require more kinds of thermal treatment) (table 3).

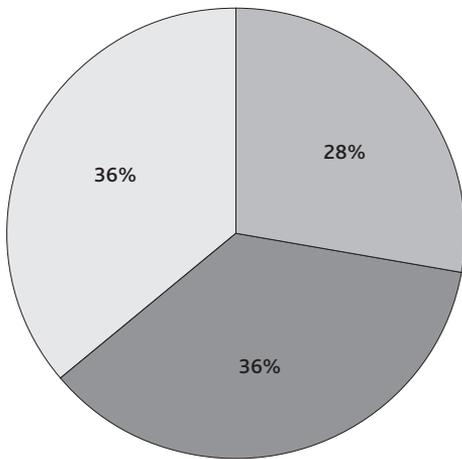
Therefore, the “Careva Ćuprija” restaurant in Belgrade has the most diverse offer of mutton and lamb dishes. As shown in the chart 5, dishes prepared by combination thermal treatment, and dishes prepared by using dry heat are equally present with 36% each. The number of dishes prepared by using wet heat is the smallest, 28%.

The offer of the ‘Milosev konak’ restaurant in Belgrade contains 7 lamb and mutton dishes. As the chart 6 shows, dishes prepared with wet heat are present with 42% of the total offer. As far as dishes prepared using dry heat are concerned, this restaurant offers lamb roasted on the spit and lamb broiled in a closed clay pot, so these dishes are present with 29% of the offer. Combination thermal treatment is also used to prepare two dishes constantly offered in the restaurant, or 29%.

Lamb and mutton dishes prepared using combination thermal treatment and dishes prepared using dry heat (that is, roasts, because their offer does not contain grilled dishes) are equally present in the “Suri” restaurant offer with 40% each. The number of

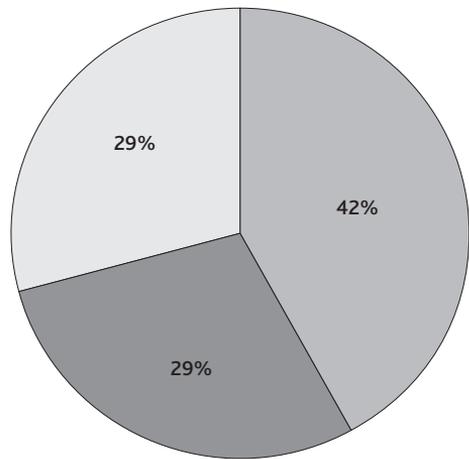
**Table 3.** Statistical data showing the presence of lamb and mutton dishes in the restaurant business in Belgrade by way of thermal treatment used in the preparation process

TOTAL NUMBER OF LAMB AND MUTTON DISHES		46
Types of thermal treatment	Number of lamb and mutton dishes	Average of lamb and mutton dishes by way thermal treatment
Dry environment	15	33%
Wet environment	12	26%
Combination environment	19	41%



● Wet heat ● Dry heat ○ Combined heat

**Chart 5.** Ratio of lamb and mutton dishes according to the heat treatment in the "Careva ćuprija" restaurant



● Wet heat ● Dry heat ○ Combined heat

**Chart 6.** Ratio of lamb and mutton meat dishes according to thermal treatment in the "Milošev Konak" restaurant

lamb and mutton dishes prepared using wet heat is the smallest in this restaurant offer, so they make only 20% of the offer.

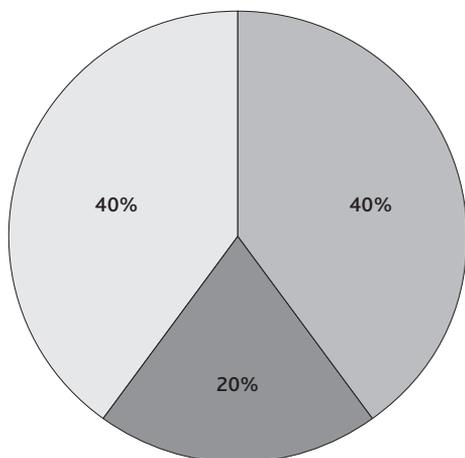
The offer of the "Uzelac" restaurant is not varied, considering the demand, so there are only 6 lamb and mutton dishes in the menu. Although lamb on the spit is the only dish prepared with dry heat, its share is only 20% of the complete offer. Dishes prepared using combination thermal treatment make 40% of the offer, the same percentage as dishes treated with wet heat, 40%.

The offer of the "Ćobanov Odmor" restaurant in Belgrade is adjusted to the specific way of conducting business in the restaurant. Dishes prepared with dry heat behave best in various catering services; therefore, they are present the most in this restaurant offer, with 50%. Lamb and mutton dishes treated with wet and combination heat are equally present in the offer with 25% each.

The "Savić" restaurant in Belgrade has only two dishes in the menu – lamb roasted on the spit, as a dish treated with dry heat (50%) and lamb broth, as a dish prepared using combination thermal treatment (50%).

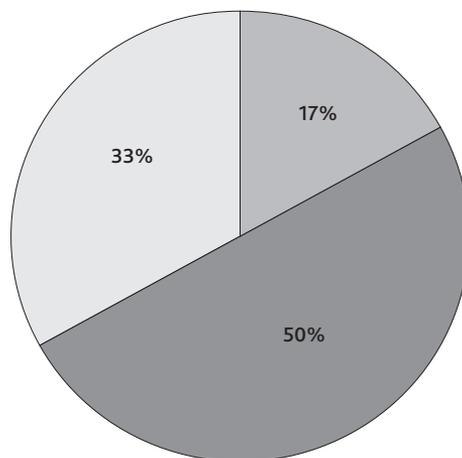
In the abundant offer of the "Mlinarev San" restaurant in Belgrade, there are three different kinds of roast lamb. The chart 8 shows that lamb and mutton dishes are prepared using dry thermal treatment with 50%. Dishes prepared by using combination thermal treatment are present with 33%, and those prepared by using wet heat with 17%.

The offer of the "Gospodarska Mehana" restaurant is traditionally rich in cooked local dishes, which are normally prepared by using combination thermal treatment, so the share of this group of lamb and mutton dishes is the largest, 45%. Dishes treated with dry heat make 22% of the offer, and those treated with wet heat make 33% of the total number of dishes offered in the restaurant.



● Wet heat ● Dry heat ● Combined heat

**Chart 7.** Ratio of lamb and mutton meat dishes according to the thermal treatment in the "Uzelac" restaurant



● Wet heat ● Dry heat ● Combined heat

**Chart 8.** The structure of lamb and mutton meat dishes according to the heat treatment in the "Mlinarev San" restaurant

## CONCLUSION

The survey on the topic – the structure of lamb and mutton dishes in the foodservice industry in Belgrade has shown that the presence of a dish in offers is relatively small when compared to the presence of other meat dishes.

Out of 504 surveyed dishes in groups of dishes where the target group appears, only 9.5% are lamb and mutton dishes.

The structure of lamb and mutton dishes in the surveyed restaurants varies regarding the category and the business policy of a restaurant.

The structure of the surveyed dishes according to groups of dishes in the menu has shown that their offer is uniform and that it is mostly reduced to cooked dishes and roast lamb. In average, lamb and mutton dishes appear 5 or 6 times in all analyzed menus. However, this number varies significantly depending on the restaurant, so the total of 12 dishes making 16% of the complete restaurant offer appears in daily menus of the "Careva Ćuprija" restaurant in Belgrade, and only 2 dishes are offered in the "Savić" restaurant in Belgrade. Several types of the same or similar dishes appear in all menus of the analyzed restaurants.

The analysis of the structure of dishes according to the thermal treatment has shown that out of 46 dishes offered in menus of foodservice facilities, 15 or 33% were treated with dry heat (of which roasts on the spit are mostly found), 12 or 26% were treated with wet heat (broths and lamb cooked in vegetables or lamb hooves in various ways), and 19 or 41% were prepared in a combination environment (preparation of different cooked dishes that demand more than one type of thermal treatment).

The reason for the weak and uniform offer of lamb and mutton dishes is the poorly supplied market as well as bad organization of this kind of meat distribution in Belgrade stores. At the moment, it is possible to find only the whole carcass or a half lamb of this type of meat, which makes them unprofitable in case a restaurant decides to focus on preparing a la carte lamb and mutton dishes. If the market was supplied with fabricated meat of lamb or mutton, the structure of these meat dishes in Belgrade foodservice facilities would be much different from the state found today.

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