

## **PREFERENTIAL HABITS OF COMMON BEAN (*Phaseolus vulgaris* L.) CONSUMERS IN MEXICO**

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### **INTRODUCTION**

Common bean is the main source of protein of the Mexican population. Throughout the years consumers in every region of the country have developed preferential habits for consuming the beans and there are specific features that define these habits in each region. These features are related to the appearance of the grain in the market as well as to the way of processing them and the appearance of the cooked beans. Since most common beans in México are consumed without caning, these aspects become important in such a way that if the consumers do not accept a given cultivar for a given feature of the grain, it is difficult that the cultivar becomes adopted. Therefore, the detailed knowledge of the consumer's preferences is very important to define objectives in bean breeding and quality programs in a given region or country, and it is also a valuable tool to design marketing strategies.

The present work was undertaken with the objective of determining the preferential habits of the bean consumers in different regions of México, including aspects of appearance of the grain before and after cooking and ways of processing and consuming the beans.

### **MATERIAL AND METHODS**

The present work consisted of a survey applied to 1514 consumers in 14 states strategically selected from the four regions in which the country was divided: North East, North West, Center and South. In each selected state three locations for the rural and three for the urban areas were randomly selected. The survey consisted of 29 questions related to aspects of marketing, processing and consumption of common beans. The survey was carried out in the different marketing areas of the sampled locations (Popular Market, Supermarket and Town stores). The surveyed women were randomly selected in the above mentioned marketing places. Uniform chart for every one of the main commercial classes, showing six groups of seeds, varying in tone, weight, and brightness was prepared using real seeds of commercial varieties and experimental lines. In these charts the consumers indicated the preferred group of seeds for the commercial class that they usually consume. The data of the survey were captured and analyzed using a DBASE program. For results interpretation of the survey the data were organized by region of the country, by origin of the surveyed woman (rural or urban) and by commercial class.

### **RESULTS AND DISCUSSION**

In the North West region of the country 98% of the surveyed individuals consumed "azufrado" types (sulfur color), while in the North East 70% of consumers prefer "pinto" and "bayo" (cream) types. In the South of the country 90% of consumers prefer "negro" type, while in the center of the country, a more cosmopolitan region, all commercial classes were consumed but

the "pinto" type. It was learned that within a commercial class, specific characteristics are demanded, for instance, in the black type, small and opaque seeds are preferred in the south of the country, while bright and medium sized seeds are preferred in the center. In the other hand in the "flor de mayo" type (cream with pink mottles), medium seeds (25 to 35 g per 100 seeds) are preferred having bright seed coat, while in the pinto type large seeds (more than 40 g per 100 seeds) are preferred and brightness of the seed coat is not so important.

The main reasons given by the consumers to prefer a given commercial class were: cooking time, flavor of the beans and the aspect of the cooked bean. It was observed that preferential habits are well established among the consumers, since 70% of them either from the rural or urbane areas responded that they were not willing to change the preferred commercial class even if the alternative class was sold to a lower price. More than 74% of the Mexicans consume beans at least 5 times a week, and the consuming rate is inversely related to the annual income per capita in the family.

Regarding the cooking process, more than 70 % of the consumers do not soak the beans before cooking, even when they know that soaking significantly reduces cooking time (Guzman-Maldonado, 1989). The reason they gave to explain this contradiction is that soaking negatively affects the flavor of the beans. The same reason was given on adding salts during soaking or during cooking. Salt addition during soaking or at the beginning of cooking reduces the cooking time (Van Baren, 1983; De Leon, 1992), but in accordance to the consumers, it affects the flavor negatively. These aspects have to be taken into account when planing research to reduce cooking time in this grain legume.

Regarding the way of processing beans, it was observed that practically no canned beans are consumed in México. The main way beans are consumed by Mexicans is as soup freshly cooked. The way the consumers prefer the grain after cooking depends on the commercial class, i.e. in the bayo type 83% of the consumers prefer that the grain stay integre after cooked, while in the azufrado type only 47% of the consumers prefer the grain this way after cooking.

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