INTRODUCTION

Cereals, together with oil seeds and legumes, supply a major part of the dietary needs to a vast majority of the populations in low-income countries. Cereals may account for as much as 77% of the total energy consumption in African countries and also substantially contribute to the daily protein needs. Of the micronutrients, cereals provide significant amounts of minerals such as iron and zinc, and some B-vitamins. However, only minor amounts of provitamin A are present. Irrespective of the favourable content of many nutrients, cereals need proper preparation techniques in order to make these nutrients available for absorption. Minerals and proteins may be largely unavailable for absorption due to presence of certain antinutritional factors. However, these factors can be substantially reduced with the help of traditional food processing technologies such as, soaking, germination and fermentation, and with input of new knowledge in enzyme technology and molecular biology.

Legumes a class of vegetables that includes beans, peas and lentils are among the most versatile and nutritious foods available. Legumes are typically low in fat, contain no cholesterol, and are high in folate, potassium, iron and magnesium. They also contain beneficial fats and soluble and insoluble fiber. A good source of protein, legumes can be a healthy substitute for meat, which has more fat and cholesterol. In many developing regions, women provide an essential a social role focused to sustain the family’s food security. This vital link cannot be underestimated and has been more formally recognized through Women-in-Development (WID) programs. These programs, established in many universities, promote teaching, research, and action on international development and global transformation as they affect women and gender relations. They serve as catalysts for the scholarly discussion of gender, development, and global change on a wide range of issues. Specifically WID has served to facilitate agricultural development and the utilization of beans in indigenous diets (Ferguson, 1994). Legumes may be consumed as immature green grains, or the whole or dehulled grains may be boiled, parched, roasted, germinated, fermented, or cooked in different ways to suit specific tastes. Many of the processes were developed long before we knew about their scientific merits. Even today, we do not completely understand all the changes that occur in a grain during the course of processing, or how this may affect its nutritive value. But many of these traditional/mechanical methods of processing and cooking have largely been confined to specific regions, and there has been little attempt to try new methods where established methods exist for utilizing a crop.

Fababean beans are can be eaten while still young, enabling harvesting to begin as early as the middle of spring for plants started under glass or over wintered in a protected location. The young leaves of the plant can also be eaten either raw or cooked like spinach. Broad beans are eaten in a stew combined with artichokes, while they are still fresh in their pods. In Nepal, fava beans are called bakulla. They are eaten as a green vegetable when the pods are young, generally stirred with garlic, in Iraq faba bean and tomatoes uses for preparing soup, or a popular snack eaten on boiled and roasted in oil with egg or onion.

HISTORY OF CULTIVATION AND USE OF LEGUMES IN IRAQ

Legumes have been an important crop ever since man started domesticking plants and have been part of our cultural heritage. Chinese literature records the cultivation of soybean between 3,000 and 2,000 B.C. Legumes also featured in the cropping systems of early Egyptian dynasties. The occurrences of pea and lentils have been reported by (Helbaek, 1986) at various archaeological sites such as Halil, Beidha and Jarmo, dating as far back as 7,500 to 6,500 B.C. The cultivation of crop is one of the oldest occupations of mankind and there might be secondary centers of diversity due to long history of continuous cultivation and records the cultivation of soybean between 3,000 and 2,000 B.C.

Legumes also known as “fertile crescent” of Mesopotamia (includes parts of Iran, Iraq. Legume production, processing and utilization are expected to expand in the future as further economic development takes hold in the region and as changing lifestyles compel more and more people to consume healthier foods. Among the ancient texts discovered in Iraq is a Sumerian Akkadian bilingual dictionary, recorded in cuneiform script on 24 stone tablets about 1900 BC. It lists terms in the two ancient Iraqi languages for over 800 different items of food and drink. Included are 20 different kinds of cheese, over 100 varieties of soup and 300 types of bread each with different ingredients, filling, shape or size (John, 2012).

One of three excavated cuneiform clay tablets written in 1700 BC in Babylon, 50 miles south of present-day Baghdad, deals with 24 recipes for stew cooked with meat and vegetables, enhanced and seasoned with leeks, onion, garlic, and spices and herbs like cassis, cumin, coriander, mint, and dill. Stew has remained a mainstay in the cuisine. Extant medieval Iraqi recipes and modern Iraqi cuisine attest to this (Albala, 2011). Al-Iraq (Iraq proper, the ancient Babylonia) grows...
rice and barley, citrus fruits, and is responsible for Iraq's position as the world's largest producer of dates (Davidson and Jaime, 2006).

**IMPORTANCE OF LEGUMES IN HUMAN NUTRITION**

Grain legumes occupy an important place in human nutrition, especially in the dietary pattern of low income groups of people in developing countries. They are normally consumed after processing, which not only improves palatability of foods but also increases the bioavailability of nutrients (Tharanathan and Mahadevamma, 2003). Legumes are a good source of essential amino acids and proteins which are complementary in FAO-WHO (1973) amino acid profile to proteins from cereals, besides being good sources of dietary carbohydrates. Plant proteins are now identified biologically as active and functionally versatile dietary components and are cheaper substitutes than animal proteins (Machailah and Pednekar, 2002). However, they frequently lose a part of their functional properties due to several circumstances such as pest infestations and pathogens during harvest and storage or when subjected to the conventional cooking processes including heat treatment. Moreover, the presence of the antinutritional factors can affect their nutritional functions, therefore, several methods are extensively used to minimize or to inactivate these antinutritional factors, among them the gamma radiation is the one (Abu-Tarboursh, 1998; EL-Niely, 2007). The interest in natural antioxidants has increased considerably in recent years because of their beneficial effects of prevention and risk reduction in several diseases. Phenolic compounds are biologically active substances, which are considered to be natural antioxidants (Rybczyk and Amarowicz, 2007; Dueñas, et al., 2008).

**Phasolus vulgaris** seeds have a notable place in the folklore throughout the world and in the traditions of many cultures such as pharmacotherapeutic effects (Hangen and Bennink, 2002; Mishra, et al., 2010). Legumes have been shown to help manage both cholesterol and blood glucose (Sievenpiper, et al., 2009; Bazzano, et al., 2011). Increased intakes are linked to the prevention of heart disease, diabetes and some cancers (Bazzano, et al., 2003; Hwang, et al., 2008). It is found that phytochemicals from legumes may be responsible effects (Campos-Vega, et al., 2010). The second meal effect is the ability of legumes to lower both postprandial glycemia after the meal at which they are consumed and also at a subsequent meal later in the day or even on the following day (Higgins, 2012).

**CHARACTERIZATION OF THE MOST IMPORTANT LEGUMES TYPES USED IN TRADITIONAL FOODS IN IRAQ**

The legumes used by humans are commonly called food legumes or grain legumes. The food legumes can be divided into two groups, the pulses and the oilseeds. Pulses group consists of dried seeds of cultivated legumes, which have been eaten for a long time. The oilseeds group consists of those legumes used primarily for their oil content that may be extracted by pressing or by solvent extraction. Faba bean is a good source of protein, oil, crude fiber, dietary fiber, starch, sugars, vitamins and minerals. Dry beans are widely known for their fiber, mineral and protein contents; however, its nutraceutical value is yet to gain as much attention in the prevention of chronic diseases (Dinelli, et al., 2006). Peas and broad beans are excellent all-round vegetables. They contain a wide range of micronutrients and are one of the best vegetable sources of protein. Chickpea, similar to other legume seeds, must be soaked and/or cooked before consumption to promote the disintegration of the seed coat and increase the bioavailability of the food product and increases its nutritional bioavailability by inactivating antinutritional factors (Chau, et al., 1997). However, it also decreases the levels of bioactive compounds and antioxidant activity of these foods, as has been shown for several seed legumes, including kabuli-type chickpea lines (Han and Baik, 2008; Xu and Chang, 2008). Lentil hull imparts superior antioxidant benefits compared to whole seed and may retain/carry that benefit when incorporated into processed foods. The antioxidant advantage of lentil hull provides significant differentiation and may be better than the pea hull or fibers that reduce insulin resistance and fasting insulin levels in clinical trials (Hughes, 2010). Recently, *Phaseolus vulgaris* is gaining increasing attention as a functional or nutraceutical food, due to its rich variety of phytochemicals with potential health benefits such as proteins, amino acids, complex carbohydrates, dietary fibers, oligosaccharides, phenols, saponins, flavonoids, alkaloids, tannins, among others (Geil and Anderson, 1994; Mishra, et al., 2010). Important biological activities have been described for fibers, phenolic compounds, lectins, trypsin inhibitors, and phytic acid from common beans like enrichment of the bifi flora bioavailability of the food product and increases its nutritional bioavailability by inactivating antinutritional factors (Jirusek Monici, et al., 2005); antioxidant (Heimler, et al., 2005); antitumorigenic (Hangen and Bennink, 2002) effects. The potential influence of soy isoflavones on breast cancer prognosis as well as their interaction with the hormonal therapy tamoxifen have led to concern about soy food consumption among breast cancer patients.

**POPULAR TRADITIONAL IRAQI MEALS OF LEGUMES**

Some popular dishes include pulses and legumes such as lentils, chickpeas, green beans, and green grams. Local consumption has not seen a significant growth, because of the geographical distances among Iraqi Jews, who ate it. Iraqi cuisine utilizes more spices than most Arab cuisines. Soups and stews are often prepared and served with rice and vegetables.

Mansaf is a popular dish. Biryani, although influenced by Indian cuisine, is milder with a different mixture of spices, and a wider variety of vegetables including potatoes, peas, carrots, and onions are also used. Traditionally, breakfast used to be a much heavier meal, especially for the working class, and included bread such as labad (a flatbread) or heavy sweet dishes such as knafa, Fal, which is fava beans cooked with chickpeas (garbanzo beans), garlic, lemon, and olive oil is a popular working class breakfast. Lablabi is another heavy garbanzo-based stew popular for breakfast in Iraq and Tunisia. Lablaby, Iraqis eating ‘lablay’ (boiled chickpeas) at a market in Baghdad a winter street food similar to the Indian ‘Dal’. The second meal effect is the ability of legumes to lower both postprandial glycemia after the meal at which they are consumed and also at a subsequent meal later in the day or even on the following day (Higgins, 2012).
other nutrients (Akibode and Maredia, 2011) conclude that grain legumes will remain crucially important as poor person’s meat. Crops addressed are chickpea, pigeonpea, mung bean, urd bean and lentil among the pulses.

REFERENCES


