Herbal medicine is the oldest and most widely used form of medicine in the world. Perhaps the most extensive investigation of medicinal plants has been carried out in the Chinese, Ayurvedic and Thai medical systems.

Whereas during the post World War II decade, the pharmaceutical industry focused on the production of synthetic or biotechnology derived drugs, in recent years there has been a tremendous revival of interest in plant medicines. Several pharmaceutical companies have initiated sophisticated plant screening programs, applying biochemical high-throughput techniques in order to find new drugs with special properties, such as anticancer activity. Furthermore, breeding research is performed to increase the content of individual plant substances with known active principles.

Spices are of economic importance for both culinary and pharmaceutical purposes. In the Middle Ages, spices were introduced to the world, especially from numerous Asian and Mediterranean countries, where the addition of natural flavor substances to food during cooking was already a long established tradition. Since the development of first distillation and solvent extraction techniques, essential oils as well as alcoholic infusions or tinctures were used as raw materials for the natural flavor mixtures.

Beside applications in the food and pharmaceutical industry, essential oil and plant extracts belong also to the most vital constituents of many cosmetic products. Here these herbal substances are mainly responsible for the typical fragrance and for good storage stability. Furthermore, plant extracts are added because they possess positive effects to the skin (e.g., chamomile extracts).

COFFEE

Of more than 70 coffee species found world-wide in nature, only the following three have achieved commercial importance: 
*Coffea arabica* L., *Coffea canephora* Pierre ex Froehner, and *Coffea liberica* Bull ex Hiern. First successful attempts to apply near-infrared (NIR) methods for the authentication of the two different cof-