Peanut seed have approximately 50% oil which is primarily composed of fatty acids (FA). The three main FAs are palmitic (16:0), oleic (18:1) and linoleic (18.2), which constitute about 90% of the oil. Oleic and linoleic are unsaturated and more desirable from a health standpoint. Oleic is much more stable than linoleic, which oxidizes 10 times faster producing off flavors and unhealthy byproducts. High oleic gives longer shelf-life and is most desirable from several health aspects. High oleic peanuts have oil chemistry essentially the same as olive oil. The first high oleic (80±% oleic) peanut (HOP) cultivar was SunOleic 95R, released by UF in 1995. Numerous HOPs have been released since 1995 by UF, U GA, TAES, AgraTech, and NC State in the US, as well as programs in Australia, Argentina, South Africa, and possibly others. Early releases in the US were very susceptible to Tomato Spotted Wilt Virus, which delayed production in the SE USA. There is currently significant production of HOPs in the SW (Texas, OK) and the SE (GA, FL, AL). Almost all of the SW acreage is in HOPs. Cultivars currently in production in the SE are FL-07, Ga-02C, AgraTech 215, Fla. Fancy, and McCloud. SW production includes Flavor runner 485, TAES ------- - and AgraTech 215. HOPs available to growers and the industry include runner, Virginia, and Spanish market-types. Australian production and marketing has moved totally to HOPs, noting the shelf-life and health advantages. The US has been slow to market HOPs to the consumer and inform consumers of the benefits. Many other crops are currently producing or developing high oleic cultivars (sunflower, canola, soybean, oats, corn, etc.).