Chapter 19

Soybean Facts
by W. Morrison*

Scientific Name: Glycine max
Family: **Leguminosae** (Legume)

**Soybean Seed Size:**
- Small = 3,500-3,900 per pound
- Medium = 3,100-3,500 per pound
- Large = 2,600-3,100 per pound

**Flower Colors:** Purple, White

**Seed Colors:** Yellow, Brown, Black, Green, Bicolored, Variegated

**Hilum Colors:** Buff (colorless), Black, Imperfect

**Pubescence Colors:** Tawny (golden brown), Gray

**Plant Height:** 20”-50” (varies by variety and environmental conditions)

**Pod Number:** 0-400 per plant

**Seed/Pod:** 1-5; 2-3 more common

**Hypocotyl Color:** Green, Purple

- 1 bushel = 60 lbs.
- 1 cwt. = 1.66 bu.
- 1 short ton = 33.33 bu.
- 1 metric ton = 2,204.6 lb.
- 1 metric ton = 36.7 bu. soybeans
- 1 short ton = 0.907 metric ton
- 1 hectare = 2.471 acres
- 1 acre = 0.405 hectares
- 34 bu/A soybeans = 2.29 metric tons/acre

**Protein content of seed** – 40%
**Oil content of seed** – 20%

- 1 bushel = 11 pounds of oil
- 1 bushel = 48 pounds of protein-rich meal

**Grade Specifications** (#1 yellow):
- Test Weight – 56 pounds or higher
- Heat Damage – 0.2% or less
- Total Damage – 2% or less
- Foreign Material – 1% or less
- Splits – 10% or less
- Soybeans of Other Colors – 1% or less

**Major Export Customers:**
1. Economic Community Countries (EU)
2. Japan
3. Taiwan
4. Mexico
5. South Korea

**Major U.S. Crops:**
1. Corn – 23%
2. Wheat – 23%
3. Soybeans – 19%

**Major World Oilseed Crops:**
1. Soybeans – 51%
2. Cottonseed – 13%
3. Rapeseed – 12%
4. Peanut – 10%
5. Sunflower – 9%

**Major Soybean Producers:**
1. U.S. – 43%
2. Brazil – 21%
3. Argentina – 11%
4. China – 11%

**U.S. Edible Oil Consumption:**
1. Soybeans – 77%
2. Corn – 6%
3. Tallow/Lard – 5%
4. Cottonseed – 4%

**Major Uses:**
- **Oil** – Margarine, coffee creamer, vegetable oil, salad dressing, mayonnaise, carriers in inks and paints, environmental friendly fuel for diesel engines, lecithin.
- **Protein and/or Whole Soybean** – Feed for poultry, swine and other animals, tofu, soy sauce, soy flour, soy sprouts, roasted nuts, soy milk, meat extenders, plastics, wood adhesives and textile fibers, pharmaceuticals.

* Taken from Louisiana Soybean Handbook. Used with permission from Dr. Walter C. Morrison, Specialist (Agronomy), Louisiana Cooperative Extension Service, Baton Rouge.