

# Flaxseed Is High in Potassium for Human Nutrition

By Jack F. Carter

*The potassium (K) content of many grains is not well known in the human nutrition and medical community. Flaxseed is very high in K, much higher than banana on a dry matter basis. The consumption of ground flaxseed and cold-pressed flaxseed oil in baked products and other foods is increasing, adding an important source of K for human nutrition.*

**WHOLE** and ground flaxseed and cold-pressed flaxseed oil are being consumed increasingly by people primarily because of their high content of the omega 3 oil, alpha linolenic acid, and dietary fiber. Flaxseed contains about 35 percent oil, of which 55 percent is alpha linolenic acid, the omega "fish oil" type. About 35 to 40 percent of flaxseed is dietary fiber, of which 10 percent actually is soluble fiber, partially mucilage in the seedcoat. The omega 3 oil and the fiber have the apparent nutritional benefits associated commonly with these two components. Ground flaxseed is consumed either in baked goods, in fruit juice drinks, or sprinkled on cold cereals, salads and other foods.

Data in **Table 1** compare the K content of flaxseed to other foods commonly suggested as good sources of K, including raw banana.

**Table 1. Potassium concentrations in selected foods.**

| Food                   | K<br>concentration<br>(as is water<br>content), % | Normal<br>water<br>content<br>of<br>product,<br>% |
|------------------------|---|---|
| Raw banana             | 0.39  | 75  |
| Orange juice           | 0.20  | 88  |
| Whole potato,<br>baked | 0.42  | 91  |
| Green beans,<br>frozen | 0.11  | 92  |
| Apple, fresh           | 0.10  | 90  |
| Milk, 2%               | 0.15  | 89  |
| Flaxseed               | 0.56-0.92   | 4   |
| Oatmeal                | 0.40  | 4   |
| Oat bran cereal        | 0.65  | 4   |

From USDA and other sources.

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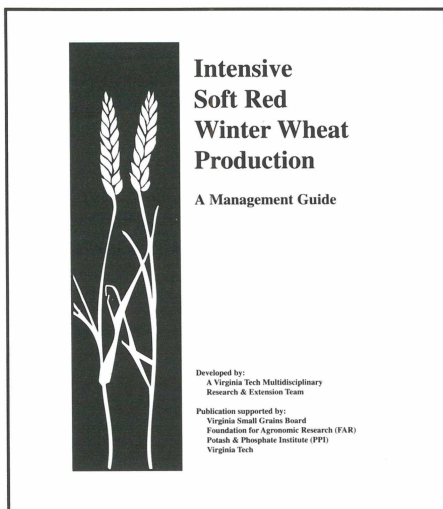
**FLAX** plants have a characteristic blue flower. The mature seed contains a surprisingly high concentration of K and offers some benefits in human nutrition.

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## New Publication, Video and Educational Programs for Intensive Wheat Management

**VIRGINIA TECH** scientists, in cooperation with the Potash & Phosphate Institute (PPI) and the Foundation for Agronomic Research (FAR), have introduced a new publication and video which give step-by-step guidelines for intensive management of soft red winter wheat. The new guide and video cover the yield-building factors of precision planting, variety selection, plant nutrition and tramline establishment, as well as the yield-protecting factors of pest management, lodging control and harvest considerations. The four-color management guide gives details on growth stages and the importance of their use in successful intensive wheat production. The guide and video are available from Virginia Tech.

To supplement the new educational materials, the Virginia Tech research and Extension team is offering an intensive wheat management training series via satellite TV. The first broadcast, on September 29, covered precision planting and fall management considerations. There were more than 40 known down-link locations in seven states which viewed the telecast. Individuals with access to a satellite dish also participated. Future broadcasts will be on January 12 and March 30 at 8:30 a.m., Eastern Standard Time. The coordinates for the broadcast are C-Band, Telstar 301, and Channel 19. For further



information contact, Dr. Bill Griffith, Eastern Director, PPI, at (703) 450-4835.

The publication, *Intensive Soft Red Winter Wheat Production — A Management Guide* (No. 424-803), and the videotape are available for purchase at \$15.00 each. As a set, in a 3-ring binder, the purchase price is \$25.00 which includes shipping. Checks payable to "Treasurer, Virginia Tech" should be sent with orders to:

Virginia Tech Cooperative Extension  
Distribution Center  
112 Lansdowne Street  
Blacksburg, VA 24061-0512  
Telephone (703) 231-6192. ■

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The high K content of flaxseed relative to human nutrition has been recognized by some of the medical profession, especially some cardiologists, based on their concept of the importance of K in the blood electrolyte system.

A review article, "Flaxseed in Human Nutrition," including a discussion of K in flaxseed, appears in the October 1993 issue of *Cereal Foods World*, a publication of the American Association of Cereal Chemists. ■