

From: [Bill Rooney](#)
To: ["Helms, Adam"](#)
Cc: ["Lloyd Rooney"](#)
Subject: RE: Black Sorghum
Date: Monday, September 28, 2009 6:30:00 AM
Attachments: [Sorghum_Superhealthfood1.pdf](#)

Adam:

The health food document that Brenda put together a few weeks back is attached.

Dr. William L. Rooney
Professor, Sorghum Breeding and Genetics
Chair, Plant Release Committee
Texas A&M University
College Station, Texas 77843-2474
979 845 2151

-----Original Message-----

From: Helms, Adam [mailto:ahelms@dsml.tamu.edu]
Sent: Thursday, September 24, 2009 5:10 PM
To: Bill Rooney
Subject: Black Sorghum

Bill,

Do you or Lloyd have an executive summary on the Black Sorghum's? I remember there being one, but I can't put my hands on it.

Thanks,

Adam

Adam Helms
Project Manager
Corporate Relations
Texas AgriLife Research
Texas A&M University System
100E Centeq Building A, Research Park
1500 Research Parkway
College Station, Texas 77843-2583
979-255-0752 (mobile)
979-458-2677 (office)

Sorghum Functionality as a Superhealthfood

Over the past fifty years, Texas AgriLife Research has been a world leader in sorghum development. Our scientists include internationally recognized sorghum specialists and innovators who are developing sorghum hybrids that provide high levels of different active components that can be protected as a plant variety. After many decades of work developing these hybrids, our scientists are now characterizing the multiple health benefits to be derived from consuming these grains, as outlined below.

Inflammation and Cancer

- High levels of flavanones and flavones are found in sorghums, which make them an excellent source of rare anti-inflammatory compounds.
- Sorghum can be processed to concentrate the phenols effectively by abrasive milling procedures like those used in rice polishing. This results in a four- to five-fold increase in tannins and antioxidants, depending on the sorghum variety.
- The condensed tannins provide anticancer activities, particularly for colon cancer but also for breast cancer, as measured by in vivo and in vitro tests around the world.
- Black sorghums, the only known common source of *unique* 3-deoxyanthocyanins, induce strong chemoprotective and anti-inflammatory responses in human cell lines.

Gluten Intolerance

- Sorghum is a popular food choice among those with celiac disease, as an inexpensive healthy ingredient for a wide variety of foods enjoyed by gluten-intolerant people. Flavors vary from bland (white sorghums) to strong whole-grain (pigmented sorghums).
- Sorghum flour and bran provide fiber and protein to bread/cake mixes used by celiacs and produce a bread product superior to traditional 100% tuber-based starch mixes.

Food Production

- Sorghum can be produced easily, stored, and processed into a wide array of extracts and milled fractions to enhance antioxidants in food systems ranging from granola bars to extruded ready-to-eat-breakfast-cereals to snacks, making them superhealthfoods.
- Obese and overweight subjects may benefit from the ability of unique sorghums to influence carbohydrate and protein digestion.

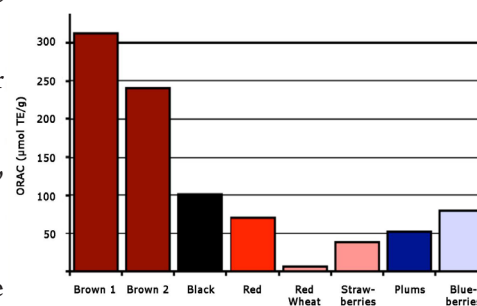
The Texas AgriLife Research sorghum program has produced hybrid sorghums for national and international release. Incorporating exotic genes into sorghum has provided a varied array of special health sorghums for use in foods, feeds, and phytochemical supplements.

Sorghum bran, its extracts, and isolated compounds will be used to develop enjoyable foods that provide protection against colon cancer. Tannin sorghums will be incorporated into appropriate food systems to test the hypothesis that they reduce obesity and diabetes.

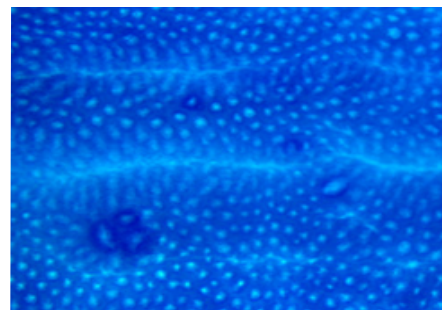
AgriLife Research investigators are positioned to work in collaboration with industry supporters to develop additional relevant data necessary to continue our efforts in the development of food or supplements with possible health benefits.



Different kinds of sorghum



Antioxidant levels in sorghum and wheat bran compared to fruits



Aberrant crypt foci in the colon



Gluten-free sorghum bread

For more information, contact

Bob Avant, Corporate Relations Director, Texas AgriLife Research
Ph: 979.845.2908 | E-mail: bavant@tamu.edu

<http://AgriLifeResearch.tamu.edu>