

# AV Reviews

Rachel Hays  
Department Editor

**Digestion: A tough dirty job; it takes a lot of guts.** 1987. University of Wisconsin-Milwaukee, P.O. Box 413, Milwaukee, WI 53201. VHS Video. Color. 56 min. \$80.

Have you ever wanted to see what is involved in digesting a meal? Have you been looking for a novel way to present a unit on the digestive process for elementary to adult learners? Biology professor Donna VanWynsberghe's lecture on digestion is just the thing.

Speaking before an audience whose age differential spans nine decades, VanWynsberghe takes her viewers on an "inside out" journey through the digestive track. Moving freely from overhead transparency illustrations to audience participatory activities, the lecturer shows how a McDonald's hamburger, french fries and soda are masticated in the mouth (food blender), moisturized by salivary glands, mixed and churned in the stomach and finally digested. This intricate process is dramatically portrayed using "The Orange Man" with his funnel mouth, clear plastic esophagus and stomach, 20 feet of clear plastic hose coiled within the body to serve for the small intestine and five feet of heavier hose for the large intestine. Wearing an apron (because digestion can sometimes be a dirty job), the professor "feeds" the emulsified McDonald's meal to The Orange Man while the audience observes the "inside out" process.

A particularly appealing feature of the lecture is the way the audience participation is used to help carry out experiments. The information presented is thorough, well organized and appropriate for teenage and adult audiences. By means of a imaginative scenario the audience views every part of the digestive tract and learns the function and mysteries of each part from the mouth to the anus. Many questions are explored and resolved visually, including what happens to the meal when HCl (stomach acid) is added to the con-

tents in the stomach? Why is fiber important? How do the four basic food groups compliment each other in helping maintain a well functioning digestive system? How efficient is the esophagus or sphincter muscles? Using this videotape to introduce or reinforce a unit on digestion might provide a memorable experience for your class.

Other topics in the Science Bag series, recorded public programs presented by the University of Wisconsin-Milwaukee, include such titles as *On the Trail of the Thick Skulled Dinosaur*; *Bolts, Jolts and Volts: The Beauty of Lightning*; *Food Flavor and Fragrances: Kitchen Alchemy*; *Sounds in the Night—Featuring the Greater Milwaukee Frog Chorus*; *Ashes to Flashes, Dust to Rust: Burning Questions in Combustion*; *Insect Eyes and Irrational Images*; *Dust Devils, Tornadoes and Waterspouts*.

A complete list of video lectures is available from Blue Sky Associates, 9 Cardinal St., Winchester, MA 01890.

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**Circle of Plenty.** 1987. Bullfrog Films, Inc., Oley, PA. VHS videotape half-inch. 27 minutes. Rental: \$50. Purchase: \$175.

The tape shows research in bio-intensive agriculture. It uses organic farming (no pesticides or fertilizer) to increase yields of vegetables to two to four times the commercial production rate using only about a fourth as much water. Two key points noted in this method are deep soil preparation, so roots can have better penetration, and growing plants much closer together in the compost-treated soil. The closeness of the plants prevents weeds and protects against water loss from the

soil through evaporation. The director of the project, John Givens, has been running this experimental project for more than 16 years and has exported his methods around the world. One of the major goals is to supply a person's dietary requirements on a plot of 1,000 square feet.

The tape discusses the green revolution of grain and shows that many of the new grains need special fertilizers, irrigation and pesticides while bio-intensive agriculture can attain high yields without extra water and chemical fertilizers. There is a place in the hungry world for both technologies.

This videotape is worth viewing to see what can be done in developing countries to feed the increasing populations.

There was no study guide; a list of sources for further reading would be of value.

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