

# Origin, History, and Genetic Improvement of the Snap Pea (*Pisum sativum* L.)\*

*James R. Myers, James R. Baggett, and Calvin Lamborn*  
Department of Horticulture, Oregon State University,  
Corvallis, Oregon 97331

*Calvin Lamborn*  
Magic Seed Company, Twin Falls, Idaho 83301

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\*The authors appreciate the contributions of the many plant breeders and seedsmen who provided information on their snap pea cultivars. Ms. Deborah Kean helped assemble the varietal information and carefully proofread drafts of the manuscript. We thank Professor Darrel Amundsen, Western Washington University, Bellingham, for Latin translations, and Drs. Machteld Mok and Carmo Candolfi-Vasconcelos, Oregon State University, for Dutch and German translations. Dr. James Julian, Purdue University, kindly shared data on fresh pea production. The comments of five anonymous reviewers were also greatly appreciated.

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*Plant Breeding Reviews, Volume 21*, Edited by Jules Janick  
ISBN 0-471-41847-1 © 2001 John Wiley & Sons, Inc.

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## I. INTRODUCTION

The snap pea is a type of edible-podded pea that is conspecific to field and garden peas (*Pisum sativum* L.). Edible-podded peas lack pod parchment or fiber, unlike field or garden peas that have fibrous pods. Within the edible-podded group, the most important trait that separates snap peas from snow peas is the thickened pod wall of the snap pea. Most contemporary snap pea cultivars have wrinkled seeds with green cotyledons, white flowers, and short internodes. The most recent introductions may also be stringless (lacking strings in the pod sutures).

Presently popular as a vegetable, the snap pea has been cultivated at least since the 19th century, and probably even centuries earlier. In the 19th and early 20th centuries they were known as “butter” or “butter sugar” peas. Over the years, they enjoyed only limited popularity and may have disappeared from the vegetable seed trade in the 1960s and early 1970s prior to the cultivars released in 1979 and thereafter. The use of the term “snap pea” in America originated with the release of Gallatin Valley Seed Company commercial cultivars, the first of which was ‘Sugar Snap’. Snap peas are sometimes referred to as “sugar snap” peas.

The pea has been grown and consumed for at least 8,000 years, primarily as a pulse. Peas were the subject of one of the first systematic plant breeding efforts of Knight (Hedrick 1928), and provided the tool for Mendel (1866) to elucidate the science of genetics. A number of reviews of pea breeding and genetics are available beginning with White (1916, 1917), and continuing with the publications of Wellensiek (1925a,b), Wade (1937), Lamprecht (1948), Blixt (1974), Gritton (1988), Cousin (1997), and Muehlbauer and McPhee (1997). To date, no review has specifically dealt with the snap pea. To be sure, much of the research on other types of pea is relevant, but some aspects of production, breeding, and genetics are unique to the snap pea. Most information concerning commercial aspects of the snap pea remains unpublished, as does the history of snap pea breeding. In this review, we present a synthesis of unpublished information, current knowledge, and the published literature.