

EVALUATION OF HERBICIDES FOR SOYBEANS ON CENTRAL FLORIDA ORGANIC SOILS

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INTRODUCTION

The problem of controlling weeds has been a major factor prohibiting large-scale production of soybeans on the sawgrass peat soils of Central Florida. With adequate weed control, good yields can be produced on these soils when planted after early sweet corn or other spring vegetable crops. Soybeans are grown during the summer, at a time when the land is normally fallowed or left to weeds. They show promise of becoming an important self-paying summer cover crop when used as part of the vegetable rotation.

A weed-free crop of soybeans offers many advantages as a summer cover. Fallowing, by plowing and harrowing repeatedly throughout this off-season, controls the weeds, but is expensive and tends to increase subsidence—a serious problem on peat soils. Although a cover crop of weeds lessens subsidence and conserves soil nutrients remaining from the fertilized truck crops, millions of weed seed are borne to hamper production for years to come. A well-cared-for crop of soybeans, on the other hand, not only conserves residual fertility but also adds nitrogen to the soil. In addition, a good bean yield will give a cash return much above the cost of production.

Production of soybeans in Florida has increased considerably during recent years. In 1958, 46,000 acres were harvested, producing 1,150,000 bushels of beans at an average yield of 25 bushels per acre (8).² Using the average government support price of \$2 per bushel, this crop was valued at approximately \$2,300,000. In spite of their higher productivity, Florida's organic soils were responsible for only a small percentage of this total soybean production. Potential production on these soils is considerable. Over 100,000 acres of "muckland" are devoted to vegetables in Florida, much of which remains idle from June until October.

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² Numbers in parentheses refer to Literature Cited.