GROWERS are vitally interested in information on the best date for sowing rice (Oryza sativa L.) in order to obtain maximum yields per acre of high milling quality. It is especially important, as has been pointed out (6), to know how new varieties and selections react when sown on different dates.

In response to date of seeding and environment, rice varieties may be grouped as "indifferent" or "sensitive." When sown early in the spring, the "indifferent" varieties head and mature in the summer or early fall, whereas the "sensitive" varieties do not usually head and mature until fall. Jenkins (6) classed the "indifferent" varieties as having a "fixed growing period" able to head and mature during longer photo periods, while the "sensitive" varieties, described by Nelson (10) as having "a marked power of adaptation," head and mature during the shorter fall days. The growth period of all varieties is shortened to some extent when sowing is delayed, but varieties differ in degree of response and this difference in response is heritable and one of the outstanding characteristics of rice varieties.

A date of seeding experiment in nursery plots was started at the Rice Branch Experiment Station, Stuttgart, Ark., in 1932 to obtain additional information on the effect of seeding date on the yield, growth, and quality of rice varieties. The results are reported in this paper.

MATERIAL AND METHODS

A total of 15 varieties and selections of rice, sown on four or five dates each season, was tested in 1 to 8 years. Eight varieties were grown each year from 1932 to 1936 and 10 varieties thereafter. The varieties were sown on five dates at approximately 15-day intervals each year from 1932 to 1936. After 1936 the late April seeding was omitted and seedings were made on only four dates.

Most of the varieties grown have been described in the literature. The short-grain varieties, Caloro and Colusa, were described by Jones (8), Acadia by Chambliss and Jenkins (2), and Jones (9) has described briefly the other varieties grown in this experiment, with the exception of Early Rose, Zenith, Arkansas Fortuna, Kameji, and the four hybrid selections.

Early Rose is an early-maturing, medium-grain variety selected by a rice grower in Arkansas. It was grown commercially in Arkansas for a year or two, then discarded. Zenith is an early-maturing, medium-grain variety selected in Arkansas in 1931 from a field of Blue Rose. Arkansas Fortuna is a long-grain variety selected from Fortuna and is the same as Fortuna except that it matures from 7 to 10 days earlier. Kameji is a midseason, short-grain variety.

The four hybrid selections grown were developed at Stuttgart, Ark., from crosses Caloro × Blue Rose, Kameji × Blue Rose, Edith × Fortuna, and Im-