

INVESTIGATION ON THE OLIGOSACCHARIDE DECOMPOSITION OF CANDIDA SOÓSI NOVÁK

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Candida soósi was described by NOVÁK (1964) as a new yeast similar to *Candida requinyii* SZÉP et NOVÁK (1963). *Candida soósi* differs from *Candida requinyii* only in a latent and weak galactose fermentation and in alkalizing of pepton water. Therefore it was ranged into the species-group *Candida requinyii* (NOVÁK and ZSOLT 1964) by its author (NOVÁK 1964).

Oligosaccharide decomposition of *Candida requinyii* was investigated earlier (NOVÁK, KEVEI, OLÁH and ZSOLT 1965). Similar investigations were performed with *Candida soósi* too. The results are published in the followings.

Materials and Methods

Type culture of *Candida soósi* (No. X/1961 in the collection of the State Institute of Hygiene, Budapest) was cultivated in Roux bottles on Csillag's molasses agar (CSILLAG 1950). The technics of the experiments with intact, acetone treated and homogenized cells and methods of paperchromatography were published earlier (NOVÁK 1960, NOVÁK, KEVEI, OLÁH and ZSOLT 1965).

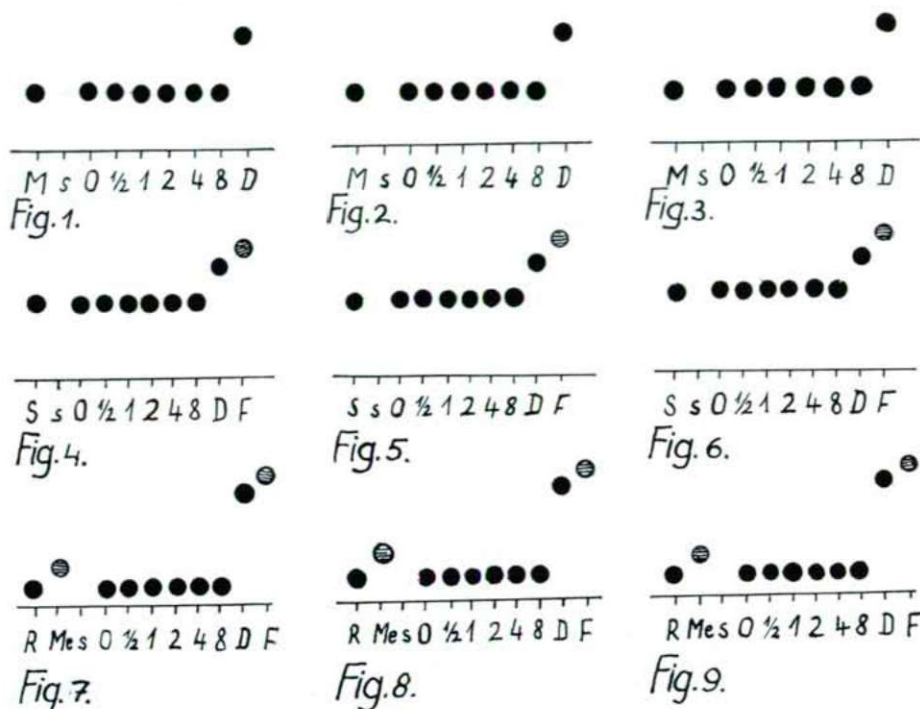
Results

The acetone treated and the homogenized cells showed no cleavage of maltose, sucrose or raffinose. No one of these oligosaccharides was uptaken by the living cells. (Figures 1—9.)

Discussion

According to the results of the experiments sucrose assimilation of *Candida soósi* must be considered as an adaptive one, because no constitutive sucrose splitting enzyme could be demonstrated. This indirect evidence of the adaptive

character of the sucrose splitting enzyme, i. e. the lack of a constitutive sucrose splitting enzyme in this organism, is an other difference between *Candida soósii* and *Candida reequinyii* which justifies the separation of this two species, because



Candida requinyii has a constitutive sucrose splitting enzyme. In connection with this we must refer to KUDRJAWZEW (1954, 1960) who, separating the different species of the genus *Saccharomyces*, took into consideration the constitutive and adaptive nature of the fermentation of the different sugars.

Authors' present results do not influence the earlier ranging of *Candida soósii* into the species-group *Candida requinyii* (NOVÁK 1964, NOVÁK and ZSOLT 1964). These results confirm, however, the opinion according to which *Candida soósii* is a separate species inside this species-group.

These data make also evident the necessity of a system with species-groups (NOVÁK and ZSOLT 1964). As shown, the usual methods of taxonomy and identification do not allow a distinction between the two species in contrast to the significant differences demonstrated above.

Summary

It was demonstrated that *Candida soósii* has no constitutive enzymes for splitting maltose, sucrose and raffinose. Therefore sucrose assimilation of this species must be considered as an adaptive one. This distinguishes it as a separate species from *Candida requinyii* which has a constitutive sucrose splitting enzyme.

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