

Chromosome Numbers in some Pear Cultivars

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Chromosomové počty některých sort hrušní

V sortimentu hrušní důležitějších pro pěstování v Československu nebyl dosud znám počet chromosomů u 11 sort. Bylo proto provedeno toto zjištění a shledáno, že všechny tyto sorty jsou diploidní, $2n = 34$. Jsou to: Ananaska česká, Anglická bergamotka, Bezjaderka Řihova, Čistěcká banánová, Fulvie, Jeanne d'Arc, Kolmarská zlatá, Monchallardova, Notář Lepin, Sterkmansova máslovka a Zefyrinka. Provedeno též ověření starších údajů o diploidním stavu sort Kongresovka a Olivier de Serres, nápadných poměrně nízkou klíčovostí pylu. Jejich diploidní počet chromosomů byl potvrzen.

Since the pollination capacity of different apple and pear varieties depends on their chromosome number, this characteristic is important in the programme of larger plantations. The Publishing House of the Czechoslovak Academy of Sciences intends to issue a monograph on pears in a series of pomological books where the description of 64 varieties important for Czechoslovak fruit growing will be published. In each variety its karyological characteristic should be given. The number of chromosomes has already been established in most varieties (cf. CRANE & LAVRENCE 1938, KOBEL 1954, UHLÍK 1961). We therefore made chromosome counts in the eleven remaining cultivars hitherto not investigated, as follows: Ananas de Bohême, Doyenné Sterkmans, Fulvie, Hamden's Bergamot (= Bergamotte d'Angleterre), Jeanne d'Arc, Monchallard, Notaire Lepin, Passe Colmar, Professor Grosdemange, Sanspépin de Říha, Zéphirin Grégoire. The somatic chromosome number was ascertained on slides prepared from flower and leaf buds by means of the rapid acetic nigrosine squash method. It was found that all varieties mentioned are diploid, $2n = 34$.

In addition, a verification of the chromosome number was made in two varieties in which a discrepancy occurs between the chromosome number

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given and the percentage of pollen germinability. They are Souvenir du Congrès and Olivier de Serres which are characterized by a relatively poor pollen germination but should possess the diploid chromosome number. We found that these varieties are indeed diploid. They may be added to the known instance of the variety Marguerite Marillat which is diploid and whose pollen germinates very badly. The variety Zéphirin Grégoire from our material also belongs to this group being diploid and usually stated to be a bad pollinator.

References

- CRANE, M. B. & LAWRENCE, W. J. C.: The Genetics of Garden Plants. 2nd Ed. — London (MacMillan) 1938.
 KOBEL, F.: Lehrbuch des Obstbaues auf physiologischer Grundlage. 2. Aufl. — Berlin (Springer) 1954.
 UHLÍK, J.: The cytological evaluation of some pear-sorts cultivated in Czechoslovakia. — Biol. Plant. **3** : 205—214, 1961.

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Хромосомные числа некоторых сортов груши

В ассортименте грушей важных для культивации в Чехословакии до сих пор не было известно число хромосом у одиннадцати сортов. Поэтому осуществлено исследование и найдено что все сорта являются диплоидными, $2n = 34$. К ним относятся: Ananas de Boheme, Doyenné Sterkmans, Fulvie, Hamden's Bergamot, Jeanne d'Arc, Monchallard, Notire Lepin, Passe Colmar, Professor Grosdemange, Sanspépin de Rîha, Zéphirin Grégoire. Сделана проверка старых данных о диплоидном состоянии сортов Souvenir du Congrès и Olivier de Serres отличающихся относительно низкой всхожестью пыльцы. Их диплоидное число хромосом было подтверждено.