

tion at the Central Experimental rm at Ottawa. In growth and habit bushes resemble the female parent, the fruit is considerably larger and the fruit is considerably larger and the improved in quality, and the berwhen ripe are tinged with red. Effect were also made during these early is to cross the black, red, and white ants with the gooseberry, but with success. After five or six years the seedlings had increased to such an int that their number was embaras, and no more work was under and no more work was under n on this line until 1890, after the allishment of the Canadian Experi-al Farms, when a larger field for work was opened. On my arrival London, Ontario, at Ottawa, in all the surviving seedling tal Farm, and since then, with the of assistants, many new forms e been produced. Among others, rids have been obtained between cultivated black currant, Ribes niand a cultivated variety of the berry, Ribes Grossularia; also bent the black currant and white cura variety of Ribes rua. In each instance the black curwas chosen as the female. Three hybrids between the black curand the white current and twentyof those between the black cur-and gooseberry, are still under There are in this instance some marked points of difference befemale and the male, and hybrids, in many respects, are inleaves of the black current are ed, and the margins are serrated airs extending further up the

if the hybrids the leaves are inter-liate in form, and almost as deeply it at the junction of the lobes as are see of the gooseberry. The serrations also of an intermediate character, ag less pointed than in the black rant and less rounded than in the seberry. The leaves of most of the rids have no odor when bruised, ent in two instances. thus have in odor when bruised, but in two instances where the k currant odor is faintly perception. The leaf stalks are more hairy those of the black curation but less hairy than those the property of the the gooseberry, the black current are the control of the black current are the control of the co sistil is single, smooth throughout, somewhat thickened and robust rds the tip, which is flat and in the gooseberry it is longer divided to the base, both branches der and very hairy for nearly length, the slender divisions ring towards the tip. In the hy-the pistil is single for about half

All the hybrids have flowered freely nd although no imperfection can be steeted in the floral organs, no fruit buld be found on any of them until st year, when two berries were found to one bush and one on another. These ere borne singly, like the gooseberry, at were about the size of a large curnit, but of a dull reddish color. The eds these contained were carefully yed and sown, but none of them arminated. This season only one start red and sown, but none of them reminated. This season only one spemen of fruit was found and this ropped before it was fully matured. Tith the view of inducing the fruit to t more freely, clusters of the flowers are been artifically, fertilized with ollen from adjacent flowers on the me bush, also from flowers of the ack currant and the gooseberry; but one of these experiments have been ne of these experiments have been The several differences and resem

are open some days before those black current; while those

ances noticed seem to establish the ue hybrid character of the progeny, point further confirmed by the fact at the gooseberry and white currant aracteristics in these hybrids are re-gnized by insects and parasitic gnized by insects and parasitic ants. The gooseberry saw-fly (Pter-nus ribesii), which is not known to uch the foliage of the black currant; onsumes, with great avidity the leaves the gooseberry and white currant; also feeds freely on the hybrids, hich, although raised from seed of the black currant, are thus recognized this insect as partaking of the nature of the male parent. The goosebry mildew, also Sphaerotheca morsevoe, B. & C., which is not known to feet the black currant, attacks the votrids freely showing that the goosebre. ybrids freely, showing that the goose-erry characteristics which they pos-ess are recognized also by this fungus hemy of the goods.

ass are recognized also by this fungus hemy of the gooseberry.

Another group of experiments with must in this genus has been the cros-ng of the cultivated black current, ibes nigrum, with the wild black cur-int of the western plains, Ribes flori-um. From this cross a number of endlings have been proqueed, partiakim. From this cross a number of edlings have been produced, partakg more or less of the characteristics both parents, some of which promise be worthy of cultivation for their uit. During the past season a numr of additional crosses in this genus we been successfully made from we been successfully made, from nich some further results of interest looked for.

The Raspberry and Blackberry

The first crosses were made with aspherries in 1869, and the work has sen continued at intervals up to the resent time. In 1869 a red variety, nown as the Philadelphia, a form of ubus strigosus, which was very protive but lacking in flavor, was rossed with a high-flavored yellow ort known as Brinckle's Orange, but he progeny in this case was tender progeny in this case was



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