
❖Odontoglossum Alliance❖

Newsletter

August 2000

ODONTOGLOSSUMS

by L. Duval

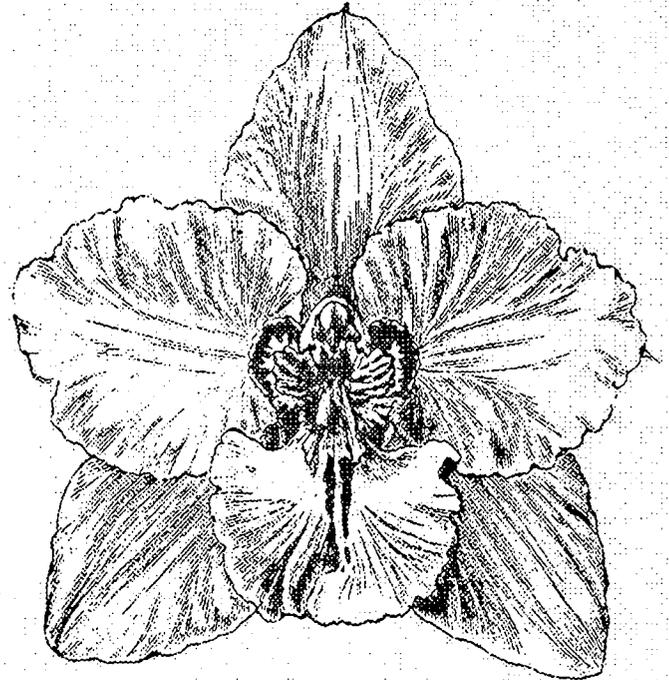
CHAPTER TEN

Culture of Odontoglossums in Leaf Mould

Since the publication of this book was decided, there have been many questions concerning a culture completely different from that recognized up to this day, at least, so far as the compost is concerned. We have believed that one must have a chapter which treats of the old method of repotting, and of the former compost, because it seems to us that it is not necessary to again assert, in an absolute manner, results which are certainly excellent, but which require attentive examination... However, it appears to be urgent, to us, to speak of them, and even to seek to explain this culture in very great detail, so that our readers may, in their turn, practice it. The reason which guides us is very simple; A treatise on culture must necessarily be made up of all the procedures which are capable of giving good results; We shall, therefore, speak of these and present these things with the greatest of impartiality.

Already, for some time, different growers in other countries and in France have tried to cultivate Odontoglossums in a compost different from that which is generally employed and of which we have given the composition. We have already said, in the chapter on Compost, the efforts made, to our knowledge, have been made with the earth of pure heather, with needles of fir trees, with coconut fibres, with pure sphagnum, and also with other substances whose names do not matter greatly...

Have these efforts been happy? It is permissible to doubt, because they remain isolated and have not been able to continue; During this time a grower of Brussels, Delanghe, has already practiced for a long time, culture of Odontoglossums in compost: This compost is that which serves in Belgium for the culture of azaleas; He is satisfied to place his Odontoglossums in this (compost), sufficiently slightly drained, in pots which are rather large; These plants do not wait to put out numerous strong roots, and give vigorous growths which transform themselves into pseudo-bulbs which are often quite enormous.



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These plants keep their leaves, and assume an aspect which is completely special, and unknown to the *Odontoglossum*. Do these plants flower as well as others? Is the duration of the blooms as long? Does this vegetation keep up for a long time? As many questions at this time were posed by the colleagues of Delangue, who attentively followed these procedures in culture, some criticizing passionately without even wishing to examine, and others, also criticizing, but, in demanding whether there was there a new culture, finally, and we are among them, also waiting to come to a conclusion that the results be absolutely certain, and that the criticisms bearing on the principal points, such as lack of floriferousness, for example, be reduced to nothingness.

Today, after the time past since the first experiences were made, it is certain that one finds there the presence of an absolutely rational culture completely practical, having given marvelous results, and which is important to make known, because everywhere where one can obtain humus (leaf mould), in the conditions required to practice it, one can report the *Odontoglossums* in this substance, with the certainty of seeing them prosper; But, however, it is useful to explain certain details, and this is what we shall now attempt to do.

It is quite evident, we have seen by the communications of collectors, and our diverse indications of culture prove it, that the *Odontoglossums* are epiphytic plants. It is necessary, therefore, to treat them as such if one does not seek to make them lose this character; Only, if, as Delanghe says, "the *Odontoglossums* in the hands of the European growers must no longer be treated as epiphytes, but as all the other plants" - which recalls that they must have plentiful nourishment, which tends to transform them to terrestrial plants, - Then, it becomes apparent that it is necessary to change many things in their culture, of which the principal is the repotting.

It is necessary therefore, to procure an excellent humus, called leaf mould; This substance is ordinarily composed of leaves of chestnut and oak, roots of fern, some debris of heather, and a natural addition of fine sand whose only purpose is to drain this sort of compost, which itself is not always easy to find, completely uncontaminated by decomposing material whose presence would not be favourable to the roots of *Odontoglossums*.

It follows that it is sufficiently difficult to clearly explain what sort of compost this must be. However, we can state that that which is gathered in groups on sides exposed to the sun on a sandy ground, and which, held in the hand, will have the appearance of a supple mass, light, without odour of mould, and of which the leafy portions are still practically intact, will be the best for the purpose with which we are concerned.

To put this compost in a pile beyond the kind of shelter achieved by careless people, that is to say, straw, compost materials, or corrosive substances whatever they may be, is one of the precautions which it is obligatory to take.

To bring it to the repotting bench, to remove most of the clutter: little stones, bits of branches, large fern or heather roots, and, in a word, to clean it so that it presents the aspect of a perfectly homogeneous melange; These are the essential preparations.

If the compost is dry, water it sufficiently to soak it throughout, without excess, however, and mix it for a long enough time that it becomes perfectly supple, but do not use it for several hours after, when it is sound but not wet.

One may then sort the very healthy plants which are provided with roots, those which have none at all or are poorly provided, and repot those which have roots in pots sufficiently large for them to remain for two years at least. One may establish on principle that it is possible to give 3 to 3.5 centimetres of compost around the old root ball. This appears to be exaggerated but we shall see presently the explanation as to why. The plants which have no roots, or, at least roots which are sufficiently poor will be repotted in pots just their size, completely as if one was faced with old compost.

Let us now observe the repotting for the plants which are in good condition: Take the *Odontoglossum*. Make the loose pieces and old compost fall down without bruising the roots; Place two or three clean shards in the bottom of the pot; Put the compost up to the top of the pot. With two fingers of the right hand, without breaking the compost, form a conical hole the size of the root ball. Plunge (the plant) into the centre of the hole and grip (it) with a light pressure of the fingers, adding compost if necessary...in order to form around the

Odontoglossum and over the old root ball a surface in the form of a flattened dome.

In the repotting, according to Delanghe, one may bury the back bulbs quite definitely, and one may slightly bury the two front bulbs...

It is possible to treat in the same fashion the plants without roots or poorly provided with roots, as the imported plants who will be from their arrival fixed in the leaf mould absolutely in the same condition as the others.

It is on leaving the moment when the plants are repotted that very precise care must be given, because, it is clear, that one is faced with subjects which, in the first instance, absorb nothing from the compost. The roots require a certain time to traverse it. This compost, being completely homogeneous throughout, traversed very easily by the waterings, has a much greater facility to break down than polypodium or sphagnum.

It is necessary, therefore, given that one has repotted in sufficiently damp compost, to moisten the plants very little and to maintain the compost thus until the day that spongioles and roots appear, an appearance which requires, according to the season, from one to two months.

When one sees that the roots are beginning to travel around the pot, one may then water more, but always with enormous precautions, reasoning, and care.

It is clearly there, the stumbling block of culture in leaf mould; It is very necessary to completely modify the manner of watering, and to leave this in only very experienced hands, because the excess of humidity in these conditions is able to produce a disastrous effect, of which the least problem is the packing down of the compost, leading to its decomposition, creating a deteriorating mass in which the roots of the Odontoglossums decompose and die. If, on the contrary, one maintains the root ball in a very healthy state, watering it certainly, but taking into account that the water passes through the potting material, and does not remain there, one will not be long in seeing good white roots, and often a carpeting of the compost by superb spongioles, and roots descending to the bottom of the pot and then returning toward the surface.

At the base of the new pseudo-bulb or growth there will form a base of beautiful roots; These will run first of all on the surface of the compost and then plunge their strong spongioles into it. The plant will vegetate, therefore, with double the strength of those treated in the former compost. Its resistance to the heat in summer will be much greater. Its vigour allows the plant to much better cope with changes in dryness and humidity which is often due to negligence on the part of the grower.

It is, therefore, that one is able to state that the Odontoglossum, thus treated, becomes a terrestrial plant. This is not terrestrial in the full meaning of the term, but, in reality, there is a change in the pace of growth of the plant which is so considerable that one has the right to postulate that the leaf mould plays a preponderant role in this culture, which comprises, as we have just seen, special conditions, concerning nothing but watering conditions.

For other concerns, they remain the same. We do not observe any modification to bring to the sprinklings or ventilation. We have only the observations to present concerning an excess of humidity, always to dread the winter. However, and we repeat this, plants grown in leaf mould cope much better with the heat of summer. Concerning the surface, opinions are divided. Some prefer a surface packed sufficiently tightly with excellent sphagnum, which does not wait to form a little pouf which shelters the roots which often emerge in profusion from the base of the preceding pseudo-bulb. Others prefer to leave the compost as it is and to not add sphagnum. The future will tell us which is preferable. In what concerns us, we believe that living sphagnum, not too closely packed, will always be an excellent choice. It suffices for that to view the nature of the roots which it hides, apparently plunging in their spongioles with delight.

Concerning the roots of Odontoglossums cultivated in this compost, it is to remark that these are much stronger, whiter, and consequently more effective in supplying the plants with a more robust vegetation, since the roots do not become bruised by contact with hard and dry shards, since we have said that it is sufficient to place two or three (shards) in the bottom of the pot, and that they are less subject to the alterations of aridity and humidity so prejudicial to the plants in this part of the pot.

This culture has been proved in several establishments, notably Delanghe, Peeters and Vinck in Belgium, MM Dallemagne, Lesueur and Bert in France; We are employing this culture at the present time with results which seem able to satisfy the most difficult situations, as well as when everything succeeds well, from the moment when one remains within the logic of things without wishing for the impossible. This culture may, therefore, be used everywhere where there is excellent leaf mould available and by those who wish to conform to the indications which we have given as precisely as possible.

Of course it is understood that the plants are not destined to remain indefinitely in the same compost without repotting, no matter what kind of compost. It is necessary always, at a given moment, to arrive at repotting them; to replace the old compost with the new, to divide, if necessary, the *Odontoglossums* and to distribute the divided plants. These are the procedures which are common to all types of compost. But, it is well accepted, from now, that the *Odontoglossum* cultivated in leaf mould, if treated judiciously for all the other conditions, gives the best results which we have enumerated, that is to say, the transformation of epiphytic plants, changed at a certain point which the collectors would not be able to recognize, and would have good reason to say what one of them had written to us, "that he had never seen, in their own country, an *Odontoglossum* as beautiful as in the greenhouses of Europe."

CHAPTER ELEVEN

Essay concerning culture in the country of the midi

Our two chapters concerning the culture in summer and the culture in winter can evidently be applied only to the climate of Paris. It is thus clear, that the care, the precautions, the many operations about which one will read in order to cultivate the *Odontoglossum* will be subject to sufficiently serious modifications according to whether one will have greenhouses in Bordeaux, at Lyons, or at Lille, and the same for Nancy or Brest.

These are the things so completely indisputable that the idea occurred to us to make, in addition, some chapters concerning different climates.

It is therefore necessary that the grower learns to appreciate the milieu where the plants live.; that they take into consideration the differences in temperature, and the nature of the atmosphere to modify his treatment, always bearing in mind the explanations which we have given in the course of the preceding chapters. But it seems necessary to us to trace in broad strokes the lines of a culture reputed until now, to be impossible, or at least, very difficult.

This culture is that which one has tempted, in different renewals, and, we must say, with some isolated success, in the midi of France and somewhere else...

For the *Odontoglossum*, the line of demarcation concerning difficulties in culture could be, in France: Montpellier, Nimes, Arles, and, in going toward the Alps, in the low-lying sections, it is understood, all the coast of the Mediterranean.

The most formidable enemy is the mistral, this hot and dry wind, which desiccates everything, burns everything, even the most resistant plants, although less than those which are unable to preserve themselves in an efficacious manner against its terrible action.

It is quite evident that at certain times of the year, the midi of France, and the adjoining countryside, the midi of Italy and even of Lombardy, have nothing in common with the mountains of Columbia...

We have seen that the *Odontoglossums* grow in an atmosphere constantly saturated with mist and rain, at an altitude of 12 to 1800 meters, and moreover; It follows, therefore, that he who wishes to cultivate these plants on flat terrain, close to the sea, with reverberations of rocks and torrid temperatures, it is to run into difficulties ...

However, it is not the amateurs who would be lacking, and it is, moreover, not the efforts which have

caused the flaw.

It is useful to say that, often, errors have been committed and that one has, much too early, departed from the precautions indicated by the most simple of reasons: to special situations, special care!...

Let us suppose, therefore, that a grower would like to attempt to cultivate *Odontoglossums* in the midi, and let us admit, if you wish, that he will not be precisely in the conditions which render this culture absolutely impossible.

We would advise him to put up, in the north, as far as possible, a shelter of a hedge of cypress, be it under large trees, or behind a thick wall, a sort of hangar of lattice-work, sufficiently glassed in, in which sufficiently numerous watering basins would be arranged to permit watering the ground abundantly; then a special reservoir containing rain water in a sufficiently large quantity to permit sprinkling the plants night and morning with great abandon. We would like to see him not suspend his plants, but to place them on a gradient inclined to the north, and close enough to the ground in such a fashion that the water resting at the bottom of this incline, on evaporating, saturates the atmosphere immediately enveloping the plants.

We should like that at the least alert of the mistral, he is able to unroll thick cloth around and beside his shelter, on which he can direct water. It could happen thus, at least as we suppose, to preserve the *Odontoglossums* from the drying effect of this cursed wind.

When the danger will have passed, it will be possible to again allow the light, and to sprinkle strongly.

It seems to us that it would be useful to line the bottom of the gradient and, as much as possible, all the surface of the path with some sort of turf. There are, for that purpose, in the midi, plants which accomplish this goal perfectly.

At what time should one put the *Odontoglossums* outside? It seems to us that one can put them out in the months of april or may, to not go back inside until october. At the end of this time, once back inside the greenhouse, the care which they require does not seem to us to differ from that which we have indicated for the region of Paris, except for a greater distribution of air each time that the weather is fine, and to not overheat the greenhouses, since one has, in the sun, the best collaboration for maintaining a temperature pleasant and regular.

If one does not wish to bring the plants out too early under the shelter which we have indicated, it would be as well to concern oneself with the cloths or the racks for shading, which must be sufficiently strong to resist the wind, and of which the shading must be fixed in such a manner as to allow between them and the glass of the greenhouse at least 25 to 40 cm. of clearance in order to sufficiently allow the circulation of the hot air.

It is necessary, at the least wind somewhat hot and dry, to close the doors, the fanlights, the hatches of aeration, and, if possible, cover the glass of these impermeable cloths of which we have spoken, in order that one may water abundantly. With these precaution, it seems to us, at least, the mistral will not be able to have as much effect, or little (effect) on the plants; its terrible breath will hardly be felt.

One has recommended for the Midi the procedure which consists in allowing water to cool on the glass of the greenhouses, the double glazing, and cooling water between the two areas of glass; This procedure is excellent, certainly, and may contribute to safeguarding the *Odontoglossums* from the aridity of the atmosphere. But, we suppose that this will carry a considerable expense, which one may avoid by using thick cloths and a momentary projection of water with manual pumping. Is it necessary to say that, in the country of the midi, insects will be dreaded as always; that it will be necessary not only to combat them everywhere, elsewhere; that it is necessary not only to fight them, but to prevent their appearance by frequent vaporizations of nicotine or by the spraying of insecticides, with which it will be necessary to saturate the air of the greenhouse by the spreading of ordinary water on the walls and on the paths of the greenhouse in great abundance... but also to frequently sprinkle the plants with rain water or at the very least, with water which does not contain calcium, especially in the morning and in the evening.

We are almost certain that culture in leaf mould, even without a surfacing of sphagnum, can give results better than with the old compost, for this reason that it is very difficult to have living sphagnum on orchid pots in the

mid of France, the same as holding plants in vases sufficiently large, one will have to at least dread the alternatives of aridity and humidity.

While indicating, in large strokes, the principles of a culture possible in a region where it has been considered often to be unrealizable, we do not at all have any pretension of setting ourselves up as innovators, to wish to impose our ideas, and to present as infallible procedures our indications of culture in the south.

We think, by this chapter, to respond to a series of questions which we have already been asked concerning this subject. We leave to horticulturalists and to amateurs the task of finding for themselves whether or not there is a simpler procedure, more practical, more clearly spoken, but we doubt it. The enemy of Odontoglossums is air dry and burning, its frequency, its duration, and its often unexpected appearance. These are, above all, conditions which are bad for Odontoglossums, and it is necessary to bring them to the attention of our readers. We hope that in knowing these things they will profit from them; that the efforts which they make will be crowned with success. It seems to us that there is nothing other than what has been said which could stop a passionate amateur, since it concerns, in reality, certain little inexpensive secondary matters and precautions within the range of all good intentions.

CHAPTER TWELVE

INSECTS

The culture of Odontoglossums does not consist solely in the care which one must bestow every day and in the multitude of procedures which we have attempted to describe in the preceding chapters; It is also necessary to concern oneself with causes which lead to arrest of normal vegetation and flowering.

For the Odontoglossum these causes are multiple, certainly, but they are not of a nature, as we shall shortly discuss, to frighten the growers. They are due, in large measure, to microscopic insects, which find easy nourishment in the tender shoots, and develop there rapidly, or in cryptogams (ferns, mosses), of a particular nature which we shall study presently. Let us first of all discuss insects; They are of diverse natures. We shall begin with an enumeration: 1, thrips; 2, moths; 3, aphids, green or black; 4, slugs, small or large, woodlouse, etc. It does not seem necessary to us to speak of red spider, because, at least to let the Odontoglossum live in the company of plants which are prone to be attacked by this terrible insect, which one cannot destroy without very great care and very great difficulty, we have never identified these on our plants.

For the Odontoglossum, it is evident that it is not sufficient to simply grow them well; There is a very important thing; It is to have good eyes and above all, to know how to observe well. We have said this elsewhere in speaking of these plants; It is necessary to have an eye sufficiently trained and attention sufficiently alert to recognize the slightest visible trace of the first onslaught of the insects with which we are now concerned.

Since nature has not always endowed growers with excellent eyesight it is best to supply oneself with the purchase of a good loupe (but always with the condition that one will use it, and will use it often). The examination of the grower or the amateur should be carried out, above all, on the young growths where they start to leave the base of the bulbs and when they have reached 2 or 3 cms. in length.

If, armed with your loupe, you observe, on the growths, traces which resemble closely enough, a network of worms, transparent, or at least with a slightly oily aspect that, assuredly there are insects.



Figure 20
leaf contaminated with
thrips

Here are the causes which can lead to considerable development of insects, principally of thrips. Among these (causes) the most serious are, the dryness of the atmosphere, ventilation badly comprised, overheating. This speaks to what concerns thrips and moths, as well as aphids... We shall say, therefore, in principle, that the best means of combating these enemies, is, above all, to prevent their takeover of the plants. For this, it is necessary to employ prevention. It is insufficient, in effect, to declare that one has not a single insect and that one is quite comfortable on this subject. It is necessary, on the contrary, and always, to behave absolutely as though one had seen them.

In culture, the least of preventatives is worth more than the curative. This is why we recommend in different repetitions to carry out frequent vaporizations of nicotine, and to keep the greenhouses well saturated. - But, as may happen, in spite of our recommendations, if one finds oneself taken and perceives with chagrin that the *Odontoglossum* growths present the aspect which we have described (Fig. 20), it will be necessary to act as quickly as possible in the following manner:

It will be necessary to prepare, in a vessel sufficiently large and clean, rain water into which one has poured nicotine at 14 degrees, in the proportion of 1 litre for 15 litres of water. The container must be sufficiently large and deep so that one may plunge the plants in such a manner that all of their parts are immersed without creasing or bruising the leaves...

This soaking is certainly very good if it is very well done, with a great deal of care, especially if one is not content with a single immersion, but rather with two or three... That is to say, after examining attentively and very minutely until there is a complete disappearance of insects...

But, for that, it is necessary to have a certain habit of examination, and to not lose sight of the fact that the insects lodge themselves in the folds of the leaves and run there when they sense the nicotine, and they again ascend after the operation is concluded...

As soon as one has drenched the plants one must place them on an incline, and even, let them lie on the benches in such a fashion as to initially drain the water, and, above all to ensure that the material of the drenching does not remain in the heart of the new growths, nor must it fall on the compost.

A good sprinkling with clean water will be necessary after the operation, around two or three days later, with the goal of lightly washing the plants.

It is rare after this operation that the insects reappear; but it may happen that if one has permitted aggravating factors to occur, the drenching in tobacco certainly kills the insects, but the contaminated parts decompose and stain. This proves that one must never delay in acting and at the least trace left by insects, one must at once drench the plants. After this operation one doesn't have to wait to see renewed vegetation, and if, next, there remain traces on the leaves, one can make them disappear by cutting them off, - without harm to the vegetation, One must not hesitate to do this.

- We have seen *Odontoglossums* reach such a degree of misery that no fewer than three immersions in nicotinized water as well as several vaporizations were necessary to rid them of insects. These are, however, quite rare isolated cases. The best thing to do is to rescue the plants, cut off all their leaves, put them at absolute rest, and permit them to re-establish themselves, not without having washed them with care, absolutely like imported plants.

We wish that our readers will never be obliged to reach this point, but it seems to us to be necessary to point out this particular case.

- We have stated that the other enemies were green aphids; These hardly resist several vaporizations which are well done or a simple syringing of water containing nicotine in a lower concentration: one half litre of nicotine at 14 degrees for 15 litres of water.

As for slugs, these are the enemies to fear because they are very difficult to find. They hide in the pots, under the tables, in the holes in the walls etc., etc., It is necessary to use guile if one wishes to take them. The best method is to provide oneself with a little lamp with a reflector, and to come in the evening to chase them, which is quite often profitable.

This does not prevent one from setting a trap, with rounds of carrots, potatoes, little piles of soil or non gummed paper on which one has spread some butter or fine fat, or even leaves of tender salad.

One has also the resource of tying branches at their base with very dry cotton, or with thick paper previously dampened in water saturated with sea salt.

There is also a sort of small slug which from time to time exerts its ravages in crunching the very tender branches; But this is quite rare, and it is fairly easy to find; Besides, it can be captured in the same trap as the other slugs.

The woodlice are sufficiently annoying, because they eat the spongioles of the roots, and the roots themselves. We know of no other remedy for the damage which they do than to look for them and capture them in traps made with potato which is hollowed out under which they curl up, which permits one to crush them with ease...

At different times we have spoken of nicotine and of spraying. This is because we believe that there is hardly any other method which is better than this agent to rid the greenhouse of insects of all sorts, but it remains understood that there are other insecticides which the grower may use to preserve the plants from insects. If we do not speak of them it is so that we do not favour one to the detriment of another; Considering that nicotine has provided proof for a long time, and its usage is well known, it is this substance alone for which we are able to describe the handling.

We have explained the strength of the baths and of the water used for sprinkling.

Concerning the spraying, we are unable to point out many instruments. We will speak of two or three very simple methods used by growers, which they find satisfactory.

One of these consists of filling an old cooking pot with melting dark red coal dust, and to quickly throw on the nicotine which transforms itself into acrid vapours which rapidly fill the greenhouse;

The other method consists of heating to red a piece of iron or melted coal, and plunging it into the nicotine; Another method is to heat a piece of iron or melted coal and then to let it fall drop by drop. All of these methods are good. The principle is to arrive at filling the greenhouse with vapour, thick but not broiling, produced by the nicotine, which must be sufficiently strong to kill the insects, and, above all, to penetrate throughout. It is understood that this operation requires urgent precautions. It is necessary that the stove be placed in such a fashion as to not burn the plants. For that, it is sufficient to remove those which are in its immediate vicinity. It is also necessary that whoever operates the vaporization be prudent, and not suffocate or asphyxiate himself by the stove or by nicotine vapours which are too acrid.

It is also necessary, after each vaporization, to carry out a little sprinkling, and to never vaporize in a greenhouse where the plants are thirsty.

The vaporization has no effect on flowers which are open if they are fresh, but it burns and bruises older blooms.

It is preferable to carry out the procedure three times with less strength than twice with great strength.

Fumigation with fragments of tobacco leaves are also very good, and the same recommendations as those given above can be applied to their use.

In countries where one is able to obtain tobacco fragments it is always excellent to put them on the pipes. The odor which arises is the type which drives insects away.

We have also seen another method which is sufficiently efficacious. It consists of allowing tobacco powder to fall into the heart of the young growths of Odontoglossums; As long as it (the tobacco powder) retains its odor and acrid nature, it is effective, but it has the defect of giving a repugnant appearance to the plants, and as far as duration of action is concerned, it is not perfectly efficacious.

Many growers, especially in England, place toads and pippins in their greenhouses. It is an excellent idea. These creatures continually chase the slugs and snails, but they have the fault of being a bit repugnant to certain individuals, and, although they render real service, they also, sometimes, frighten nice visitors. This is why in France one rejects their use.

To summarize, insects which attach themselves to the leaves and buds do not develop in quantity or in a manner to compromise vegetation except in greenhouses which are poorly cared for, where the air is lacking, where the atmosphere is overheated, and where the saturation is lacking. All else aside, their presence constitutes being the object of immediate care, and must not leave any traces after several days.

Final Dues Reminder

We have received dues payment for all our last years members with the exception of 38 people. Each of those are receiving in this newsletter a **FINAL REMINDER**. For those of you who have not paid by the time of the mailing of the November newsletter, there will be **NO** mailing to you.

Spring Odontoglossum Alliance Meeting.

It has been a practice to hold a meeting of the Odontoglossum Alliance each spring, generally at the location of the AOS Trustees meeting. This is in conjunction with an orchid show. Last year the spring meeting of the Trustees was held in Florida, a location of few odontoglossum alliance growers. In lieu of that an informal meeting was held in San Francisco at the time of the San Francisco orchid show.

The AOS Trustees spring meeting is being held in Columbus, Ohio 24-28 April 2001. Several possibilities exist for our group. We could (1) Hold a meeting in Ohio, (2) Repeat holding a meeting in San Francisco, (3) Hold a meeting somewhere else, or (4) Skip having a meeting.

We would like to solicit opinions from you - our members. If you wish to express your desires you can do so by communicating with either Steve Beckendorf our President or John Miller, Secretary.

Steve Beckendorf
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John E. Miller
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Please respond promptly to help make the decision and give adequate time for organizing the meeting.

□□

New Zealand Newsletter

Beginning with this newsletter we are back at including the New Zealand Odontoglossum Alliance newsletter. Susan Tucker has taken up the baton and is producing the newsletter. Ron Maunder has retired from publication and reverted back to concentrating on his orchid nursery.

Tachira Orchids Show

The Tachira Orchids Show is scheduled for January 11-14, 2001 in San Cristobal, Venezuela. This is one of the largest orchid shows in Venezuela. The previous show had 9501 attendees. Venezuelan geographical location provides a favorable condition that Colombian orchid lovers come to enjoy the show. The area has some *Odontoglossum* species like *spectatissimum*, *odoratum*, *gloriosum* and *tour* can be scheduled to see them in their natural growing state. The show will be at the Castillo de la Fantasia Hotel, San Cristobal, Venezuela. For more information contact by e-mail: <mailto:cafb@telcel.net.ve> or by FAX: 011-58-76-562830 (Cesar Fernandez) Persons interested in attending and/or exhibiting should start immediately to make contact as it will take time to arrange for the necessary permits.

Mystery Solved

Juan Felipe Posada, proprietor of Colomborquideas submits snapshots of some recent crosses he has bloomed. These refute two commonly held beliefs.

- 1) *Odm. crispum* x *Cyrt retusum*. Thus far, in all crosses registered with *cyrtochilum* as one parent, the *cyrtochilum* parent has invariably been the male parent. Here is a photograph of a seedling blooming from a cross in which the pod parent was *cyrtochilum*.
- 2) There is much speculation that *Odm. harryanum* and *Odm. wyattianum* are a single species which may vary over their extended range. *Odm. harryanum* is found in Colombia and Ecuador, while *Odm. wyattianum* is found in Peru. There is further speculation that early *harryanum* primaries were made with *wyattianum* instead of the Colombian form of *harryanum*. Juan Felipes' photographs show flowers made with both parents. The *crispum* x *harryanum* flowers are identical to archived images of early crosses, while the *wyattianum* crosses are much different. This puts to rest the question: "Were early breeders confused about the difference between these two species and used *wyattianum* in lieu of *harryanum*"?

See the photographs on page 27.

THE WOODLANDS ORCHIDS

DESCRIBED AND ILLUSTRATED

WITH STORIES OF ORCHID-COLLECTING

BY

FREDERICK BOYLE

Author of

'Camp Notes,' 'Legends of My Bungalow,' 'About Orchids, A Chat,' etc. etc. etc.

COLOURED PLATES BY J. L. MACFARLANE, F.R.H.S.

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THE COOL HOUSE

contains about three thousand plants, mostly *Odontoglossums*. It is a 'lean-to,' of course. Not all the most successful growers use this form of building. Baron Schröder's world-famous *Odontoglossums* dwell in an oblong structure which receives an equal quantity of light from every side. Even the hardiest of epiphytal orchids are conscious of influences which we cannot grasp, and those who understand them are unwilling to lay down fixed rules. But experience shows that under ordinary conditions cool species thrive in a 'lean-to' better than in a house of full span. It may be because the back wall retains moisture and gives it out all day steadily, whilst the air is saturated and dried by turns if fully exposed to a hot sun. Or it may be because the full light of a span-roof is too strong in most situations. A collector once told me that he often found *Odontoglossum Pescatorei* so buried in *Lycopodium* as to be invisible until the flower-spike appeared. Evidently such a plant does not need strong light. Both causes operate, perhaps. At least the broad fact is so well established that one might almost fancy Baron Schröder's *Odontoglossums* would do better, if that were possible, in a 'lean-to.'

There are three glass partitions, but from either door the full length of the house is seen; a pleasing vista even when there are no flowers—all smoothly green on one hand, rocky bank upon the other, studded with ferns and creepers and

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an orchid here and there. Why these plants dislike to stand in a long house open from end to end is a question none the less puzzling because every gardener is ready to explain it. Loving fresh air so well they cannot object to the brisker circulation. But their whims must be respected, and after building a house ninety feet long we must divide it into compartments.

I name a few among the rarities here. Of *Odontoglossum* :—

Wilckeanum.—Upon internal evidence Reichenbach pronounced this a natural hybrid of *Od. crispum* × *Od. luteo-purpureum*. It was one among innumerable instances of his sagacity. A few years ago M. Leroy, gardener of Baron Edmond de Rothschild at Armainvilliers, crossed those two species and the flower appeared in 1890. It was *Od. Wilckeanum*; but for the sake of convenience this garden hybrid is called *Leroyanum*.

Wilckeanum pallens.—A form still rarer of this rare variety; yellow-ivory in colour, heavily splashed with brown; lip white, with a brown bar across the centre.

Wilckeanum albens.—Very large, white instead of yellowish; spotted and blotched with brown.

Ruckerianum.—Sepals and petals white in the centre, edged with violet, yellow lip; all spotted with reddish-brown.

Ruckerianum splendens.—Larger and more finely coloured in all respects than the normal form. The violet margin is broader.

Vuylstekeanum.—Those who saw the original plant of this noble species at the Temple Show some years since have not forgotten the spectacle assuredly. Petals and dorsal sepal pale yellow; lip and side sepals brightest deepest orange.

Mulus.—A natural hybrid of *Od. luteo-purpureum* with *Od. gloriosum* no doubt. It bears a strong spike, branched,

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with many large flowers, bright yellow blotched with pale brown. But the colouring varies greatly.

Josephinae.—Named after Miss Josephine Measures. White, with a rosy flush; sepals and petals spotted with chocolate at the base.

Hunnewellianum.—Small, but very pretty. Sepals and petals pale yellow, profusely dotted with brown; lip white, with a single brown spot.

Elegans.—Assumed to be a natural hybrid of *Od. cirrhosum* and *Od. Hallii*. The ground colour, faintly yellow, is almost concealed by chocolate spots and patches; lip white, with a large blotch in the centre.

Crispum virginale.—Very large and pure white, saving the yellow crest.

Crispum Measuresiae.—Sepals and petals broad, white, spotted and blotched with reddish brown. Lip unusually large, with a single great brown blotch.

Edithae.—Rosy white of sepal and petal, bordered with yellow and barred with chestnut; lip pale yellow, much deeper at the base, with chestnut spots in the centre.

Crispum Our Empress.—A remarkable variety. Very large, rose colour, heavily blotched with reddish purple; lip paler, covered with brown spots.

Crispum Woodlandsense.—A superb example of the 'round-flowering' type. Sepals and petals very broad, densely spotted with cinnamon-brown; lip short, broad, similarly spotted.

Crispum magnificum.—Sepals pale rose; petals and lip very faintly flushed; the whole covered with brown spots.

Bictoniense album.—The ordinary *Bictoniense* is pretty enough when the lower blooms on the densely clothed spike can be persuaded to last until those above them open. This uncommon sport is much more effective, with sepals and petals of a lively brown, and broad lip of purest white.

Facetum.—A good example of this catches the eye at once. Ground colour pale yellow, almost hidden by great brown bars upon the sepals. The petals are sharply freckled with brown, and up the middle runs a series of dark red dots. Lip similarly freckled above, with a large splash of brown in front; the lip handsomely fringed.

Cristatellum.—Rather small and not impressive, but valuable for its scarcity. The yellow ground colour shows itself only in a few narrow streaks upon sepal and petal, and in the base of the lip. Elsewhere it is hidden beneath layers of chestnut.

Hallii magnificum.—A variety finer in all respects than the common type. Sepals brown, save the yellow tips, and a few yellow lines; petals yellow, with two large brown blots. The fringed lip also is yellow, with two brown blots.

Madrense.—Named after its place of birth, the Sierra Madre, in Mexico. The plant is not uncommon, but it does not flower willingly, as a rule. Sepals and petals ear white, with a double purple blotch at the base; lip small, bright orange.

Polyxanthum magnificum.—The grandest variety of a species always treasured. In colour deepest 'old gold,' with four or five great blots of chestnut on the sepals, and as many spots at the base of the petals. The lip has a shallow fringe and a broad splash in the centre.

Wallisii.—Small. Sepals and petals dusky yellow, with a long straight bar of chocolate down the middle. Lip white at the base, with small rosy streaks; the disc rosy, edged with white.

Hallii leucoglossum.—One of the largest Odontoglossums. Buff or greenish yellow, lip white, fringed; all heavily blotched and spotted with dark brown.

Mirandum.—Among so many charming species this must

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be reckoned curious rather than pretty. Narrow and rather small, dull greenish yellow, with a longitudinal bar and spots of red-brown.

Wilckeanum Rothschildianum.—Perhaps the handsomest form of this rare variety. Large, very broad of sepal and petal, pale yellow, blotched and spotted with brown.

Pescatorei Germinyanum.—Named after the Comte de Germiny, an enthusiastic lover of orchids, as indeed of all other flowers. This ranks, among the prettiest forms of *Pescatorei*. Petals white, sepals flushed; both marked with a spot of dark rose. Lip white, with similar dots.

Sceptrum.—A superb variety of the common luteo-purpureum. Sepals deep reddish brown, with yellow edges; petals yellow, blotched with reddish-brown. Lip yellow, with a single blotch in front.

Coronarium.—One of the *Odontoglossum*s which may be termed climbing *par excellence*, for the pseudo-bulbs thrust out a long shaft before taking form. It makes a very large plant, and probably the example here is the largest existing—at least there are few as big. By successive enlargements, the basket in which it stands has reached the dimensions of three feet by two. *Coronarium* is reckoned among the species slow to flower, but here we find no difficulty at all. Last season our plant made nine growths and threw up eight spikes—a record! Noble spikes they are too, bearing twenty to thirty blooms; petals of the brightest red-copper, marbled with yellow at the base; petals somewhat browner, both edged with gold. Lip small, narrow, light red, broadening towards the tip, which is pale primrose. I should describe *coronarium* as the most majestic of *Odontoglossum*s.

Crispum Arthurianum.—A notable variety—very large, blush-white, with one enormous chocolate blot and two or three small spots on sepal and petal. Spotted lip.

Crispo-Harryanum.—This is one of the very few hybrid

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Odontoglots. It was commonly assumed until a few years ago that the genus would not bear fruitful seed in Europe. This notion proves to be ill-founded happily, but to obtain good seed is still very difficult, and to rear the young plants more difficult still. Crispo-Harryanum was raised by M. Chas. Vuylsteke near Ghent. The flowers show the influence of either parent in colour and shape; the petals, which in Harryanum refuse to expand, are almost as flat as in crispum.

Humeanum.—We may confidently assume that this is a natural hybrid of *Od. Rossii* and *Od. cordatum*. The former parent is so handsome that he has begotten a very pretty progeny, though the mother is so plain—sepals primrose, closely spotted with brown, petals and lip white, the former similarly spotted at the base.

Tripudians oculatum.—A rare and beautiful variety of an interesting species. Very much larger than the common form; sepals of a lively brown, with yellow tips, petals yellow, mottled with brown; lip white, with violet spots above, a large blot below.

Platycheilum.—One of the oddest and rarest *Odontoglots*. Sepals and petals white, with a few brown dots at the base; lip large and widespread, pink, spotted with crimson.

Baphicanthum.—A valuable hybrid of *Od. crispum* and *Od. odoratum* or *Od. gloriosum*, as internal evidence suggests. All primrose of ground colour, but the sepals and petals are thickly dotted with red-brown.

Schillerianum.—Exceedingly rare. Pale yellow; sepals and petals spotted with chestnut. The lip has one large chestnut splash in the centre.

Murrellianum.—Probably a natural hybrid of *Od. Pescatorei* and *Od. naevium*. White tinged with violet, sepals and petals spotted with purple.

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Lindeni.—A superb species, but uncommonly reluctant to display its charms, as a rule. In my own poor little house it has been growing bigger for years and years. The pseudo-bulbs are five inches high now, and more than two thick, but I look for flowers in vain. When they condescend to appear they are all sulphur-yellow, crumpled, or, as the phrase goes, undulated, in a fashion quite unlike any other Odontoglot.

Grande magnificum.—The common form of *grande* ranks among the showiest of flowers, much too big, indeed, and too strong in colour, to be approved by a dainty taste. But this is even bigger, its yellow more brilliant, its red-brown markings more distinctly red. There is record of sixteen flowers on one spike, each seven inches across!—I scarcely expect to be believed, but ‘chapter and verse’ are forthcoming on demand.

Crispum aureum.—Almost as yellow as *polyxanthum*, ‘the very golden’—a most remarkable variety. The spots are few and small.

Crispum Cooksoni, on the other hand, is white, superbly spotted, or rather blotched, with crimson-brown. Perhaps the best of its class.

Crispum Reginae.—Immense. White. The handsome spots, of purplish brown, are more regularly disposed than usual.

Crispum Chestertoni.—Peculiar for a yellow lip, while sepals and petals are white; the former of these heavily splashed, and the latter sprinkled, with red-brown. The lip has a brown blot on the disc.

Rossii aspersum is a natural hybrid of *Od. Rossii* and *Od. maculatum*, as is supposed. Sepals and petals faintly yellow, spotted with brown at the base; lip creamy white.

Pescatorei album.—Large. All pure white.

Pescatorei superbum.—A round flower, of great ‘sub-

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stance'—which means, in effect, that it will last an unusual time. Notable for the deep tone of its purplish markings.

Pescatorei grandiflorum.—Immense. The lip has a yellow dash at base.

Pescatorei splendens.—Sepals and petals white; lip handsomely spotted with purple.

Pescatorei violaceum.—The whole flower is tinted with violet.

Crispum purpureum shows a similar peculiarity, but the tint is purple.

Crispum Dayanum.—The sepals have a large irregular patch of darkest mauve in the centre, the petals a spot or two of the same colour and a streak at the base. The lip is white.

Old-fashioned people have not yet learned to call *Odontoglossum vexillarium* a *Miltonia*. To avoid confusion I will give it no generic name at all. It should be observed, however, that in our collection these plants are 'grown cool' all the year round. Among the most important are:—

Vexillaria Cobbiana.—Pale rose with white lip.

Vexillaria Measuresiana.—All white save the golden 'beard.' Perhaps the handsomest of its rare class.

Vexillaria rubella.—Deep rose. Valuable for its habit of flowering in autumn.

STORY OF ODONTOGLOSSUM HARRYANUM

MEN supremely great in science have a quality beyond reason, such as we term instinct, enabling them to leap over the slow processes of demonstration, and announce a law or a result unsuspected, which they cannot yet prove. The great Collector Benedict Roezl had this gift. Returning from the memorable expedition in which he discovered the *Miltonia* commonly called *Odontoglossum vexillarium*, he assured Mr. Sander that in those parts would be found a true *Odontoglossum* of unusual colouring. When asked the grounds for his opinion he could only say he 'smelt it.' Mr. Sander was not unused to this expression, and he knew by experience that Roezl's scientific nose might be trusted. It was something in the air, in the 'lie' of the country, in the type of vegetation, which guided him, no doubt. Other collectors born and bred have a like sense. Roezl showed his supremacy by the confident prediction that this new species would be darker than any known, and striking in the combination of its tints.

This was in 1875. Ten years later Professor Reichenbach wrote to Mr. Sander of an astounding *Odontoglossum* he had seen—it may be necessary to tell the unlearned that Professor Reichenbach was the very genius of orchidology. Nothing in the least resembling it had been even rumoured hitherto. And then Reichenbach described *Odontoglossum Harryanum*. The raptures of that enthusiast were wont to

divert admiring friends, expressed with quaint vehemence, but always suggesting that he mocked himself the while. Never had he such a theme as this. Speaking with due thought and sufficient knowledge, I declare that *Odontoglossum Harryanum* is the most finished result of Nature's efforts to produce a flower which should startle and impress by its colours alone, without eccentricity of shape or giant size, or peculiarities of structure. Remembering that not all the world has seen this flower, I should give just a hint of the means employed. Fancy, then, eight or ten great blooms, dark chestnut in tone, barred with yellow, striped with mauve; the lip white, broadly edged with a network of bluish purple and intersected by a deep stain of that tint, beyond which is spread a sheet of snow; touch with gold here and there, and you have the 'scheme of colour.' Those who knew the great savant can imagine how he raved after giving, with luminous precision, his scientific report of the new orchid.

Reichenbach persuaded himself, by study of the flower, that it must be a native of Mexico. He was wrong for once, but people were so used to regard him as infallible that Mr. Sander did not think of doubting the assertion. Presently, however, it became known that Messrs. Veitch had bought the plants, a dozen or so, from Messrs. Horsman. And then Mr. Sander learned by accident that the latter firm received a small case of orchids from Barranquilla, twelve months before. While pondering this news, Roezl's unforgotten prophecy flashed into his mind. Barranquilla, in the United States of Columbia, is the port of that district where *Odontoglossum vexillarium* is found! He had a collector not far away. Within an hour this gentleman, Mr. Kerbach, received a telegram short and imperative: 'Go Amalfi.' Not waiting an explanation Kerbach replied 'Gone!'—reached Amalfi in due course, and found

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another telegram containing a hint that sufficed, 'New Odontoglossum.'

Kerbach began to inquire the same day. It was hardly credible that an orchid of importance could have been overlooked in the neighbourhood of Amalfi, where collectors—French, Belgian, and English—had been busy for years. A hunt there would be very unpromising. Kerbach wandered about, asking questions. Thus at Medellin he made acquaintance with a Bank clerk. It may be noted, by the way, that the inhabitants of that busy and thriving town, the bulk of them, are descendants of Maranos—that is, Jews converted by the processes of the Inquisition. Doubtless there are records which explain why and how many thousands of those people assembled in a remote district of New Granada, but they themselves appear to have lost the tradition; they have lost their ancestral faith also, for there are no more devout Catholics. The religious instincts of the race assert themselves, however, for New Granadans in general are not more fervent than other creoles of South America, while the town of Medellin is an oasis of piety.

The Bank clerk was questioned as usual, though not a likely person to take note of plants. 'Why,' said he, 'there was a customer of ours at the Bank yesterday, swearing like a wild Indian at orchids and everybody connected with them. I should advise you to keep out of his way.'

'What have the orchids done to him?' asked Kerbach.

'I wasn't listening, but I'll inquire.' And presently he brought the explanation. A young French collector had been in those parts some years before. He stayed a while at the planter's house, and there discovered an orchid which stirred him to enthusiasm. After gathering a quantity he made arrangements with his host for a shipment to follow next season, promising a sum which astonished the native. But this young man was drowned in the Couca. After a

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while Don Filipe resolved to despatch a few of the weeds on his own account to Europe, and he consigned them to a friend at Barranquilla. But the friend never returned him a farthing. He had handed the case to some one else for shipment, and this some one, he said, could not get his money from England. It is pleasant to hear, however, that Don Filipe had implicit trust in British honesty. He proclaimed his friend a swindler, and doubtless he was right.

All the cash that this good man was out of pocket could not well have exceeded ten dollars, and his time did not count. Perhaps he would have been less furious had the loss been greater. Anyhow he nursed his wrath with Indian stubbornness—for Don Filipe was an Indian, though distinguishable from a white only in character, as are myriads at this day.

Kerbach did not doubt that he had found his *Odontoglossum*, and gaily started for the hacienda. Some little diplomacy might be needed, and rather more cash than usual; but of course a sane man would come to terms at last. Don Filipe was absent when he arrived—a fortunate chance, perhaps. Meantime Kerbach entertained the ladies, played with the children, and made himself agreeable. The haciennero found him seated at the piano, and applauded with the rest.

But his face changed when they got to business. Kerbach opened with flattering remarks upon the wealth of the country and its prospects. Don Filipe purred with satisfaction. Gradually he worked round to orchids. Don Filipe ceased to purr, and he hastily begged leave to visit the cacao plantation. As they rode through the sheltering woods Kerbach looked about him sharply. It was too late for flowers, but the growth of *Odontoglossum Harryanum* is very distinct. He espied one plant and recognised it as a new species.

The trouble must be faced, and after dinner Kerbach

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explained his object, as gently as he could. The planter flamed out at once, dropped his Castilian manners, and vowed he would shoot any man found gathering orchids on his estate. Kerbach withdrew. Next day he visited two other hacien­deros of the district. But Don Filipe had preceded him. Less rudely but with equal firmness the landowners forbade him to collect on their property.

A brief explanation is needed. In those parts of South America, where the value of orchids is known to every child, a regular system has been introduced long since. As a rule almost invariable, the woods belong to some one, however far from a settlement. With this personage the collector must negotiate a lease, as it is called, a formal document, stamped and registered, which gives him authority to cut down trees—for the peons will not climb. At the beginning, doubtless, they shrewdly perceived that to fell a stout trunk would pay them infinitely better—since they receive a daily wage—than to strip it, besides the annoyance from insects and the risk from snakes which they elude. At the present time this usage has become fixed.¹

Without the assistance of peons, Kerbach could not possibly get plants sufficient to ship. To cut down trees without authority would be a penal offence, certainly detected. He explored the country at a distance and found nothing. It was necessary to come to terms with Don Filipe at any cost or abandon the enterprise. Meantime letters reached Amalfi describing the new *Odontoglossum*, with a picture showing the foliage. It was that he had found. The treasure hung within reach, and a pig-headed Indian forbade him to grasp it.

¹ Two or three years ago, however, the Government of New Granada made a law forbidding such destruction of trees—a measure which has happily reduced the output of orchids, since the natives are unwilling to climb for them.

In such a difficulty one applies to the Cura. Kerbach paid this gentleman a visit. A tall, stout, good-natured ecclesiastic was he, willing to help a stranger, perhaps, even though unprovided with the dollars which Kerbach offered 'for the poor,' if his mediation proved successful. The Cura made the attempt and failed signally. It was useless to try again. The good man begged ten dollars, or five, or one, upon the ground that he had done his best. But Kerbach in despair was not inclined for charity. The Cura sighed, hesitated, tossed off a glass of aguardiente and proposed another way.

'This is a wicked country, sir,' he said. 'Ah! very wicked. And the wickedest people in it have a proverb which I shudder to repeat. But your case is hard. Well, sir, they say (heaven forgive them and me!), "If the saints won't hear you, take your prayer to the devil." Horrible, isn't it?'

'Horrible!' said Kerbach. 'But I don't know where to find the devil.'

'Yours is a pious country I have heard, though not Christian. In this wicked land even children could tell you where to seek him. Now, you will give me a trifle for my poor?' And he held out his hand.

'But I'm not acquainted with any children. Your reverence must really be more explicit.'

'Bother!' exclaimed his reverence, or some Spanish equivalent. 'Well, you will pay me the fifty dollars promised?'

'Twenty! When Don Filipe signs the lease.'

'And all incidental expenses? Then my sacristan will call on you to-morrow. Never talk to me again of your impious projects, sir.'

The sacristan was very business-like. He demanded a dollar to begin with for the Indian who would work the

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charm, and another dollar for himself to pay for the masses which would expiate his sin. Kerbach asked details, which were given quite frankly. The wizard was a respectable person—attended church, and so forth. The sacristan had talked matters over with him and neither doubted of success. Kerbach must write a letter to Don Filipe's wife begging her to intercede. The wizard having charmed that document before presenting it, she would be compelled to grant its request. If the planter should still refuse, a curse would be launched against him. And he could not dare resist that.

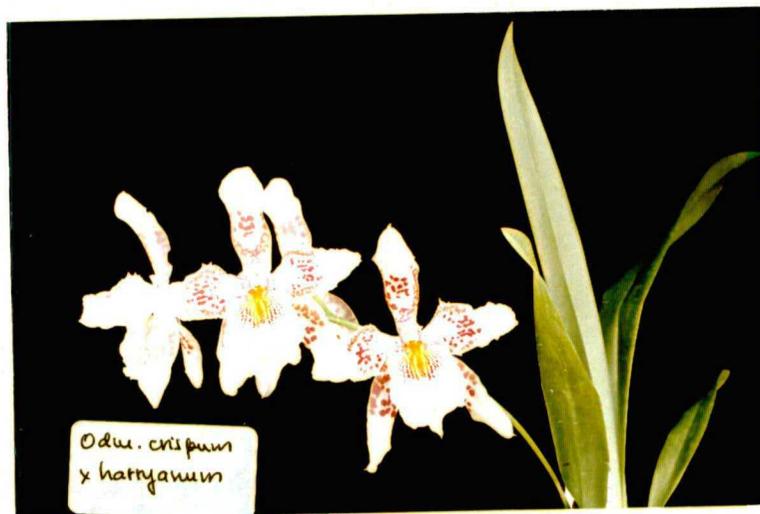
The man was so serious, he explained himself in such a matter-of-fact tone, that Kerbach, laughing, risked two dollars on the chance. With the letter in his pocket the sacristan departed. Two days later he returned. Don Filipe was willing to negotiate the lease. Kerbach was so delighted that he never thought of asking whether the lady's gentle influence or the terrors of the curse had persuaded him. Thus Odontoglossum Harryanum was found, to the eternal glory of Roetzl.



Odm. (Cyrt.) retusum x Odm. crispum



Odm. crispum x Odm. wyattianum



Odm. crispum x Odm. harryanum



Odm.(Cyr.) retusum
x
Odm. crispum

Odm. (Cyr.) retusum x Odm. crispum



Odm. crispum
x
wyattianum

Odm. crispum x Odm. wyattianum



Odm. crispum
x
harryanum

Odm. crispum x Odm. harryanum