

*Presented by the Society*  
*4 May 1864*  
ANSWERS

FURNISHED BY THE

Acclimatisation Society of Victoria,

TO THE ENQUIRIES

ADDRESSED TO IT BY

HIS EXCELLENCY THE GOVERNOR OF VICTORIA,

AT THE INSTANCE OF

THE RIGHT HON. THE SECRETARY OF STATE FOR  
THE COLONIES.

MELBOURNE:

PRINTED BY WILSON AND MACKINNON,

COLLINS STREET EAST.

1864.

A N S W E R



FURNISHED BY THE

Acclimatisation Society of Victoria,

TO THE ENQUIRIES

ADDRESSED TO IT BY

HIS EXCELLENCY THE GOVERNOR OF VICTORIA,

AT THE INSTANCE OF

THE RIGHT HON. THE SECRETARY OF STATE FOR  
THE COLONIES.

MELBOURNE:

PRINTED BY WILSON AND MACKINNON,

COLLINS STREET EAST.

1864.



## ENQUIRIES

ADDRESSED TO THE ACCLIMATISATION SOCIETY OF VICTORIA BY  
HIS EXCELLENCY SIR CHARLES H. DARLING, K.C.B., GOVERNOR  
OF THE COLONY.

The Gentlemen to whom these questions are addressed, are earnestly requested to consider the high importance which will be attached to the answers which they may return, and the service which they will render to the cause of Acclimatisation by endeavouring, to the utmost of their knowledge, to make those answers as full and otherwise as satisfactory as possible.

The main purposes of Acclimatisation are to introduce, acclimatise, and propagate in the United Kingdom and its Dependencies such Animals, Birds, Fishes, Insects, and Vegetables as are likely to be of use or ornament, whether for domestication or for varying the common food of the people, or for manufacturing, or for any other useful purpose; and whose constitution and habits offer a reasonable prospect of successful cultivation. It is obvious that in India, Australia, Canada, the Cape, and other important dependencies, unlimited scope is afforded for almost any variety of experiment.

It is confidently expected that the answers returned to these questions by Her Majesty's Ministers, Governors and Consuls in different parts of the world, will bring together a mass of information on this interesting and highly important branch of knowledge such as never has been collected before, and the benefit which these Gentlemen will thus confer upon their fellow-countrymen will be in proportion to the fulness and exactness with which those answers are drawn up.

In replying to Questions 1, 2, 3 and 8, it is particularly requested that those special qualities which recommend the Quadrupeds,



Birds, Fishes and Vegetables as fit for food or domestic utility, may be described. As regards Quadrupeds, Birds and Fishes, it will be very desirable to collect all the information which can be got as to the best modes of feeding, keeping, and rearing the same, and, as regards Vegetables, any information as to the best mode of cultivation.

A copy of the last Annual Report of the Acclimatisation Society of Great Britain accompanies this and will serve to explain more completely the action and purposes of the Society.

I. Is there any Quadruped, indigenous or introduced to the Country in which you reside, which (having regard to the above definition of the objects in view) merits attention with a view to acclimatisation in Great Britain or any of its dependencies? If there be any such, state whether it is attainable at a reasonable rate, and whether it is likely to bear the risk of transport.

II. Is there any such bird?

III. Is there any such Fish?

IV. Is there any such Insect?

V. Is there any such Timber Tree?

VI. Is there any such Medicinal Plant?

VII. Is there any Fibrous Plant likely to be useful for manufacturing purposes?

VIII. Is there any Vegetable suitable for the food of man, or for forage, or for any other useful purpose?

IX. Do you know any Quadruped, Bird, Fish, Insect, Tree or Plant existing elsewhere, the introduction of which to the country in which you reside would be likely to be beneficial: one of the objects of the Acclimatisation Society being to reciprocate the benefits which it receives from other countries?

X. Does any organization exist, or could it be easily called into existence capable of undertaking the task of introduction?

Any Remarks founded upon special knowledge or local information, capable of being made useful to the progress of Acclimatisation will be desirable.



# REPLY TO HIS EXCELLENCY'S COMMUNICATION.

ACCLIMATISATION SOCIETY'S OFFICES,

*Melbourne, March 24, 1864.*

MAY IT PLEASE YOUR EXCELLENCY,

Herewith I have the honor to enclose the answers to the series of questions which was laid before the Council of the Acclimatisation Society by your Excellency. The papers now enclosed were drawn up in the first instance by a Sub-Committee, consisting of Dr. Mueller, Professor McCoy, and Dr. Madden, and were then carefully revised and amplified by the whole Council, and the Council trust that the form in which they now hand them to your Excellency will compare favorably with that of the answers of a similar nature which are now being sent into the Colonial and Foreign Offices from all parts of the world.

I have the honor also, by request of the Council, to beg that your Excellency will in forwarding these replies to the Duke of Newcastle, at the same time intimate to His Grace the strong desire of the Council to possess a complete copy of the other replies received. The Council cannot but feel that those answers will form a most interesting, and at the same time, a most trustworthy guide-book to the Acclimatisation Societies in their endeavours to extend their usefulness, and they would regret extremely if the mass of information got together at such an expense of time, and with so much effort, should not be utilized to the utmost possible extent by making common property of such information.

I have the honor to be, Sir,

Your Excellency's most obedient Servant,

EDWARD WILSON,

*President.*

To

HIS EXCELLENCY SIR CHARLES H. DARLING, K.C.B.

*Governor of Victoria,*

*&c. &c. &c.*



## ANSWERS TO THE FOREGOING ENQUIRIES.

---

### QUESTION 1.

Is there any Quadruped, indigenous or introduced to the country in which you reside, which merits attention with a view to acclimatisation in Great Britain or any of its dependencies? If there be any such, state whether it is attainable at a reasonable rate, and whether it is likely to bear the risk of transport.

Various *Marsupiatæ*, from the larger species of Kangaroo to the Kangaroo Rats, would be worth transferring from Victoria to countries of a similar climate. Their flesh, however, with the exception of that of the Bandicoot, which is superior to Rabbit, is scarcely equal to that of most other game, though their skin furnishes a good kind of leather. From the peculiarity of their form, and their eccentric movements, they would constitute a very interesting feature in parks; and from their speed they might furnish a valuable addition to objects of sport. The transit of these animals is attended with no great difficulty, when they are once tamed.

The Porcupine Anteater (*Echidna hystrix*) might be a desirable acquisition anywhere in the warmer temperate zones. Its meat is excellent. This animal may possibly prove hardy in the southern parts of Britain, as it ascends the Australian Alps in the summer season. In transport, these creatures require great attention, as during voyages they have to be fed on a milky food and eggs.

---

### QUESTION 2.

Is there any such Bird?

Of the few which Victoria can offer, the Emu (*Dromaius Novæ Hollandiæ*, and *D. irroratus*) stands foremost as a bird desir-



able for naturalisation in other similar climates. The great ease with which its transit can be effected when small, the fair food which the flesh of the young bird affords, the adaptation of this bird as well to a sub-alpine as tropical clime, its contentedness with very indifferent food, its great size, its abundant oil (used by the colonists for medicinal purposes), its harmlessness, the value of its eggs, tend all to recommend it for introduction into many other countries. Its fecundity is considerable, as frequently eight to fourteen birds are raised from the same nest. It would, with care, prove hardy in British parks.

The Native Turkey or Bustard (*Otis Australiana*) deserves every attention: it is easily kept in captivity, and is thus readily available for transit, and in size and excellence for the table is fully equal to the European Bustard. It is not, however, prolific, and is therefore not very valuable in a strictly utilitarian point of view.

The Wonga-Wonga Pigeon (*Leucosarcia picata*) is so large, and excellent for the table, that it may be particularly recommended for transmission to other warm, temperate countries.

The Mallee Hen (*Leipoa ocellata*) could be readily naturalized in South Africa or the South of Europe, and has lately been kept with little trouble in a domestic state, laying a large number of delicate eggs of a surprisingly large size.

Our Quail, of several species, are objects sought by the sportsman; they are also excellent for the table, readily kept in confinement, and therefore may be easily conveyed into other countries.

The so-called Magpies (*Gymnorhina*) and Laughing Jackass (*Dacelo gigantea*) merit, as vermin-destroying animals, introduction into other sub-tropical and warmer extra-tropical regions, and by the robust, jovial humour of their merry pleasant notes and quaint manners, would form most desirable additions to British parks. Both of these can be supplied in considerable numbers.

The Black Swan (*Cygnus atratus*) not merely deserves attention on account of its ornamental appearance, but also for its down and for its flesh, which, when obtained from cygnets, is excellent food.

The Cape Barren Goose (*Cereopsis Novæ Hollandiæ*) is deserving of introduction into Britain and its colonies of milder climate.

Other geese and ducks, for instance, *Anseranas leucogaster*, *Anas superciliosa*, *Bernicla jubata*, *Casarca tadornoides*, *Malacorynchus*



*membranaceus*, could no doubt be taken, with a view of naturalization, advantageously and readily to other parts of the globe; they are all good for food, and the first is very easily domesticated, while the second breeds now readily in company with the European Wild Duck, which it meets in the wild state, as introduced by the Acclimatisation Society of Victoria.

---

### QUESTION 3.

Is there any such Fish?

The so-called Murray Cod or Cod-Perch (*Oligorus Macquariensis*) is the most important fish, which could be transferred from Australia to the fresh waters of other countries stretching through the milder parts of the extra-tropical zone. It not unfrequently is sent to the markets of a size weighing from twenty to thirty pounds, and even attains a weight of eighty or one hundred pounds, and the flesh is sufficiently good to take first or second place in the dinner *carte*. Its principal food is the smaller river Crayfish (*Astacus quinquecarinatus*), but it eats the smaller fish also. There seems to be no reason why the young fish should not as readily be carried in ordinary glass globes over sea as many other fresh water fish. Supplies could be secured for this purpose with facility, owing to the ready communication we have by railway with the Murray River, or in smaller quantity from the southern rivers of Victoria, to which it has been already transferred. Some other fresh-water fish of the Murray are even preferred to the Cod Perch for the table, as the Silver Perch (*Cernua Bidyana*) and Golden Perch, and a few others, but they are not of great size, and perhaps not equal to many European kinds in flavour.

---

### QUESTION 4.

Is there any such Insect?

None of the insects of Victoria are at present known to possess properties rendering them worthy of transmission to other countries, with a view to their naturalisation, although some of the *Cocci* infesting the *Acaciæ*, or common wattle trees, in great numbers, afford a fine purple dye.



## QUESTION 5.

Is there any such Timber Tree ?

The Victorian timber trees, with few exceptions, are not likely to bear the climate of Britian ; and in the South of England and Ireland, where a few species have been acclimatized, they can only be viewed as objects of curiosity or ornament.

But in warmer regions, especially beyond the tropics, where it is of importance to raise trees in woodless districts, none could be chosen for this purpose surpassing and but few equalling certain species of ours in rapidity of growth. Thus in Natal, and in other countries where fuel is excessively scarce, they might be raised most readily from seeds in the utmost profusion.

In some of the lower regions and plateaus of the Highlands of India our trees would be equally eligible for raising shelter plantations, and furnishing, finally, fuel and material for artizans.

The most important timber tree which we can offer is the Blue Gum tree (*Eucalyptus Globulus*). It is most readily raised from seeds ; and the seedlings, when a few months old, are easily transplanted during cool and humid weather. In rapidity of growth this tree excels perhaps all other trees of the globe ; in regard to size, it must be reckoned amongst the most gigantic productions of the vegetation of the world ; for durability of its timber, and its resistance against decay as well in water as underground, it is excellent, and it is eligible for most purposes where a hard and heavy wood is needed. The tree, although chiefly a natural production of humid valleys, nevertheless resists well the influence of great heat and of hot winds.

Several other *Eucalypti* are of nearly as much importance for introduction into several of the British colonies. Thus the Red Gum tree (*Eucalyptus rostrata*) grows also with remarkable celerity, and is recommended especially for plantations in depressed ground. Its wood is extremely durable, very suitable for underground work, piles of wharves, &c., susceptible of an excellent polish, and affords superior fuel. It is like all other *Eucalypti* most readily raised from seeds. *Eucalyptus amygdalina* is also a timber tree of quick growth, and besides is remarkable for the extreme abundance of volatile oil in its foliage.

The Stringy Bark tree (*E. obliqua*) is the most to be recommended where a tree is sought for extensive plantations on barren



ranges, and where a fissile wood for fencing purposes is required; it attains also gigantic dimensions, and its stem is almost invariably of a beautiful straightness. The bark furnishes material for rough paper.

The other large *Eucalypti* eligible as timber trees are *E. goniocalyx*, *E. corymbosa*, *E. botryoides*, *E. Woollsii*, *E. coriacea*, *E. Leucoxylon*, *E. Gunnii*, *E. viminalis*, *E. odorata* and *E. persicifolia*. The last is the famous Ironbark tree, so singular for the toughness and durability of its wood.

Some *Acaciæ* of Victoria, are also of great celerity of growth, amongst which *A. mollissima* is the most eligible. It is, however, neither a large nor a lasting tree, but of great value for the quick shelter it affords when raised for protection of other plantations; it yields moreover a gum similar to that of gum arabic, and also a good kind of tanner's bark.

The W. Australian *Acacia lophantha*, generally introduced here, is also highly suitable for the quickness of its growth and readiness with which it can be raised as a temporary shelter tree, though never attaining a large size. Of all our *Acaciæ*, however, the most valuable is the Blackwood tree, *Acacia melanoxylon*, on account of its beautiful wood, which has been with the greatest advantage used for elegant and durable cabinet work, for railway carriages, &c. The tree attains great dimensions in fertile, especially irrigated, ground, and is readily raised from seeds.

*Acacia homalophylla*, though but a small tree, is much sought for its dark, scented, heavy wood, well known as the Myall-wood; this plant is restricted to the desert country.

---

## QUESTION 6.

Is there any such Medicinal Plant?

As far as known, the only plant restricted to these parts of Australia, and not merely used as a substitute for other species in the *Materia Medica*, is the Sassafras tree of Victoria and Tasmania (*Atherosperma moschatum*). Its bark is a powerful tonic, of which the efficiency seems mainly to rest in a peculiar alkaloid; it yields also a volatile oil, of which the especial therapeutic properties have to a great extent as yet to be ascertained. The tree can, however, only be naturalized in deep, springy, forest ravines, of countries



with a climate analogous to that of Tasmania and of the southern parts of Victoria.

It is, however, not to be overlooked that several *Acaciæ*, especially *A. pycnantha* and *A. mollissima* yield a copious supply of gum similar to that of gum arabic; and as both trees are of extremely easy growth, they might even on that ground deserve the attention of cultivators abroad.

The native Cypress Pine (*Callitris verrucosa*), a tree easily and rapidly growing in sandy soil, yields a kind of Sandarach resin.

The myrtaceous trees and shrubs are all more or less rich in æthereal oil, which in many instances greatly resembles the medicinal Cajuput oil. *Eucalyptus amygdalina* has yielded nearly 4lb. of oil from 100lb. of fresh leaves; several other species yield also a large return of oil, which has proved most useful for admixture with other essential oils in the manufacture of soaps. *Melaleuca linearifolia* has furnished 1 $\frac{3}{4}$ lb. from 100lb. of leaves and branchlets. These oils have attracted attention as not only medicinally valuable, but also as solvents for various kinds of superior varnish resin, and for illuminating power (*vide Jurors' Report of the Victorian Exhibition, of 1861*).

As medicinal products, the astringent gum-resins of various *Eucalypti* likewise deserve attention, all species exuding more or less of this substance.

There are plants in this country yielding excellent substitutes for the following drugs: Gratiola, Mezereum, Winter's Bark, Mint, Gentian, Lobelia, Althæa, &c.

---

### QUESTION 7.

Is there any Fibrous Plant likely to be useful for manufacturing purposes?

The *Cyperus vaginatus*, a sedge of extreme abundance in some of the humid depressions of the colony of Victoria, produces a remarkably tenacious fibre, which by the aboriginal population was once largely employed for cordage and for making their fish-nets. This plant is certainly deserving introduction into other countries.

The Australian Flax (*Linum marginale*) seems to have no claims to be introduced elsewhere in preference to that species which has been cultivated for ages, unless for its perennial duration.

Two fibrous Plants introduced here appear to hold out the greatest



prospect for lucrative introduction into several other regions of the globe, viz., the New Zealand Flax, *Phormium tenax*, which could be cultivated without any protection in the southern parts of Britain, and which may be grown in inundated places not readily available for other cultivation; and, secondly, the Rhea, *Bæhmeria nivea*, from which the Chinese grass-cloth is made. The latter plant has proved quite hardy and luxuriant in Victoria. Both are most easily grown and multiplied, and ought to be naturalized in all tropical and temperate latitudes.

The fibres of *Sida pulchella*, *Brachychiton populneum*, *Pimelea axiflora*, several Stipa-grasses, although not without value to us here on the spot, are apparently not of sufficient importance to entitle their respective plants to an introduction into other countries.

---

#### QUESTION 8.

Is there any Vegetable suitable for the food of man, or for forage, or for any other useful purpose?

Of culinary Vegetables indigenous to Victoria, we have three kinds of Spinach. One of these *Tetragonia implexicoma* is a littoral plant, and for practical purposes similar to the well-known New Zealand Spinach. It is perennial, expanding and climbing to a wide extent, and might be advantageously transferred to every sandy and rocky seashore of the globe, wherever it will prove hardy. Seeds are very seldom obtained, and hence the plant has to be exported in a living state. The second is identical with the New Zealand Spinach, *Tetragonia expansa*; it belongs not only to the Victorian sandy coast, but also to the desert. By means of seeds it can without difficulty be introduced, as is well known, into other countries; it occurs wild also on the sub-tropical east coast of Australia, and therefore might be introduced into hot climates.

The third kind of Spinach alluded to is that of *Chenopodium auricomum*. This plant is still more valuable than the *Tetragonice*, being more palatable and more nutritive; it grows also in tropical Australia, and will thus endure the climate of many warm parts of the globe.

Of Fruit Plants we have scarcely any deserving introduction elsewhere, unless perhaps the Quandang, *Santalum acuminatum*; for although it is far inferior to the ordinary fruits commonly under



cultivation, the fact of its being a desert plant, not becoming parched by Sirocco-like winds, entitles it to consideration.

Of Forage Plants we have some excellent Grasses, well deserving of introduction abroad; thus for countries of warm climate the perennial Kangaroo Grass, *Anthistiria Australis*, would be eligible, as well as *Panicum decompositum*, and several other grasses, chiefly belonging to the genera *Panicum*, *Danthonia*, and *Agrostis*, of which seeds can be obtained with ease.

An excellent tender Swamp Grass is *Danthonia nervosa*, and a splendid forest grass the recently discovered *Festuca dives*. For countries with a colder climate three of our taller and yet tender-leaved Alpine Grasses might advantageously be selected, viz., *Festuca Hookeriana*, *Danthonia robusta*, and *Hierochloe antarctica*.

A magnificent American Fodder Grass, *Bromus unioloides*, has become sufficiently plentiful here in cultivation to render seeds available for re-distribution.

---

### QUESTION 9.

Do you know any Quadruped, Bird, Fish, Insect, Tree, or Plant existing elsewhere, the introduction of which to the country in which you reside would be likely to be beneficial: one of the objects of the Acclimatisation Society being to reciprocate the benefits which it receives from other countries?

#### QUADRUPEDS.

Besides additional numbers of any of the valuable animals appearing in the list of those already imported by the Acclimatisation Society, such as the Hog Deer, Manilla Deer, Axis Deer, Formosa Deer, Rusa Deer, English Hare, &c., &c.; the following may be named:—

The Cape Hare, *Lepus Capensis*.

The *Lepus Americanus*.

The Chinchilla of S. America (*Chinchilla lanigera*) would be desirable for its fur, as the climate and abundance of small bulbous roots in the ground would probably suit it perfectly in the wild state.

The Spring Haas (*Helamys Capensis*) or Leaping Hare of the Cape, for sandy and stony desert tracts in the northern districts,



is desired in the hope of adding to the very scanty food to be found by the explorer or pioneer in such localities, to which the habits of the animal are well suited; its flesh would prove a welcome meal to many persons engaged in pushing the settlement of this new country.

The Gazelle of the Cape is desired, as well as that of North Africa (*Gazella dorcas*), in large numbers to turn loose in the country beyond the Murray, where they would thrive well and ultimately afford both excellent food and good sport.

The Ourebi of Natal (*Scopophorus Ourebi*), for grassy northern districts.

The Gems-bok, *Oryx Gazella* of S. Africa, is desired for sandy northern plains, as it thrives well in parched country, where little else can live, is of good size and most excellent flesh.

The Oryx, *Oryx Leucoryx* of N. Africa, is desired, as a fine antelope, feeding on acaciæ, and appropriate to a climate like that of the north of our colony,

The Eland, *Oreas Canna* of S. Africa, is particularly desired, from its great size, excellent flesh, and being able to thrive, without water, for long periods on parched herbage; it is expected to be a boon of inestimable value to those periodically parched northern districts towards which the industry of the colony is extending.

The Koodoo, *Strepsiceros Kudu* of S. Africa.

The Californian or Rocky Mountain big horn Sheep (*Caprovis ammon*), for mountainous districts of Gipps Land.

The Cape Sheep.

The *Cervus Canadensis* for acacia localities.

The Red Deer, *Cervus elaphus*, Roebuck, *Capricolus capræa*, and all other kinds of deer.

The Klip Daas or Rock Rabbit, *Hyrax Capensis* of the Cape.

#### BIRDS.

It may be mentioned generally that Victorian farmers and gardeners suffer very much from the depredations of insects, and therefore any of the soft-billed birds of Europe, or other temperate countries, are desired in unlimited numbers, particularly those, which



like the robin (*Erythaca rubecula*), and hedge-sparrow (*Accentor modularis*), love the neighbourhood of man. The Acclimatisation Society of Victoria has introduced and liberated large numbers of the common sparrow from England, and the tree sparrow from China, to keep down the caterpillar, while feeding their young; and the mino (*Gracula musica*) from India, to diminish the myriads of destructive grasshoppers and small locusts; also the song-thrush, to clear away the slugs. But any additional number of these and other such birds would be very welcome. Although in all parts of the colony a great variety of ants are very troublesome, none of the ant-thrushes (*Pittæ*) of India or America have (from the difficulty of keeping them in confinement) been procured, although some of them would probably live well near our northern boundary. Our forest trees, too, are infested with very numerous larvæ in the timber, while in the whole country there is no representative of the woodpeckers, appointed in other parts of the world to remedy this evil; and although the difficulty of introducing either the woodpecker or ant-thrush would be very great, still the experiment would be a very curious and important one in its effects.

The Serpent Eater (*Serpentarius secretarius*) or Secretary Bird of the Cape, is desired for the diminution of our snakes.

The Crowned Pigeon (*Goura coronata*), from Java or New Guinea, has only been very sparingly introduced, and a large supply would be particularly valued, of this the largest of the pigeons.

The China Pheasant (*Phasianus torquatus*).

The Monal (*Lopophorus Impyanus*) and all the other Himalayan Pheasants are particularly desired, to be turned loose in the alpine parts of Gipps Land, where both the temperature and the great abundance of small bulbs and corms in the ground, afford so nearly those natural conditions requisite for successful naturalisation of those splendid, easily bred birds. A few of them only have been imported by the Society, including the horned and satyr tragopans (*Ceriornis Lathamii* and *C. Satyr*), the monal, and two kaligee.

The *Penelope cristata* of South America. A large supply of Curassows, two of which, the *Crax alector* and *C. Alberti*, as well as the *Ourax miter*, thrive well here; the two former laying regularly. These are desired, as large and excellent birds for the table.



The Sand-grouse (*Pterocles*), both of India and Africa, are desired for the northern sandy districts. Any of the species of Francolins and grouse, as well as all kinds of partridges and quail in large numbers, will be desirable for some years to come.

The Adjutant of India (*Leptoptilus Argala*), as a scavenger.

The Ostrich (*Struthio camelus*) would, no doubt thrive in our northern sandy country.

The *Cygnus nigricollis*, the black-necked Swan of the W. coast of South America.

To these must be added a large number of birds, introduced and partially naturalised by the Acclimatisation Society of Victoria, which are required in large numbers for many years, such as the common and gold and silver pheasants, common and red-legged partridge, peafowl, grey and black Indian partridge, any of the more highly esteemed wild geese and ducks, more especially the pintail and its allies, blackbirds, thrushes, skylarks, starlings, minos, &c.

#### FISH.

The *Cyprinus carpio* and *C. gobio* of Britain, the Gouramie (*Osphronema alfax*) from China or Mauritius, and any other palatable pond-fish.

The Salmon (*Salmo salar*), Trout (*Salmo fario*), Char (*Salmo salvelinus*), Grayling (*Thymallus vulgaris*), and other principal river fish of Europe. Lobsters and crabs, and the better kinds of fish of European seas. In relation to this suggestion, reference may be made to the fact of several specimens of sea fish, consisting of the grey mullet (*mugil capito*), as also the edible crab, having actually been imported alive from England, and the gouramie from Mauritius.

#### INSECTS.

The *Bombyx Cynthia* and *B. Arrindi*, to establish a supply of coarse silk, not requiring labour to feed the worms.

The *Coccus Cacti*, the cochineal insect.

#### PLANTS.

Amongst the multitudes of plants which, finally, no doubt, will be extensively cultivated in Victoria, a few of the seemingly most important may be alluded to on this occasion; as some of these are evidently destined to add to the resources of this country and to aid in the support of an increasing population.



Recent experiments have shown, that the hardier varieties of Cotton are in favourable localities of Victoria producing a remunerative crop. The importation of seeds of the Peruvian tree-cotton and other hardy varieties, on which we have commenced to experiment, should therefore be maintained.

The Senna plant also for practical cultivation has not yet found its way into this colony, where no doubt in suitable localities it could be grown to advantage.

On account of its large yield of mealy substance the tropical American Cassava (*Jatropha Manihot*) is desirable for introduction, with a view of ascertaining whether in our climate it could be cultivated to advantage, its cultivation extending to some extra-tropical countries.

The successful introduction of various species of *Cinchona*, including the valuable *Calisaya*, into various of the British possessions of India, affords the ready means of transferring to us specimens for ascertaining whether these important plants could be acclimatised in favourable mild and sheltered parts of Victoria, as seems from the mean temperature of our climate not impossible, though the *Cinchona* plants inhabit in a natural state mountain regions of the tropics.

Of Grasses it would be particularly advisable to obtain for our coast and higher mountain regions the Tussock grass of the Falkland Islands (*Dactylis cæspitosa*), which has been established in the Shetland Islands, and from whence it could probably be further distributed.

The Buffalo Grass of North America, *Sesleria dactyloides*, would be highly acceptable.

Our colony being destitute of any Pine Timber of considerable dimensions, it is important to encourage the introduction of any larger species of the fir tribe. Canada might furnish us with supplies of seeds of *Pinus Canadensis*, *P. nigra*, *P. microcarpa*, *P. Strobus*; British Columbia with *Pinus Douglasii*, *P. bracteata*, *P. nobilis*, *P. ponderosa*, *Sequoia sempervirens*; Nepaul with *Pinus Brunoniana*, *P. Pindrow*, *P. Webbiana*, *P. Deodara*, *P. excelsa*, *P. longifolia*, *P. Gerardiana*; whilst from British Parks the Norway Spruce (*P. Abies*), the Larch (*P. Larix*), the Silver Fir (*P. Picea*), and many other ornamental and highly useful pines, might be much more extensively introduced than has hitherto been the case.

Useful plants available in Britain for introduction into Australian husbandry are, amongst others, the Mustard (*Sinapis nigra*)



of which the cultivation might prove highly remunerative, amongst medicinal plants, *Aconitum Napellus*, *Podophyllum peltatum* (cultivated in Britain), *Valeriana officinalis*, *Gentiana lutea*, *Colchicum autumnale*, *Crocus autumnalis*. Amongst fruit plants, various kinds of Brambles; and suitable for our higher mountains, *Vaccinium myrtillus*; also the Osier Willows.

By the co-operation of members of Acclimatisation Societies in various parts of the globe, many other plants could no doubt, on a larger scale, be introduced into Victoria, though they are not available in any British colony; thus, for instance, the huge Pines peculiar to California, including the majestic *Wellingtonia gigantea*, *Taxodium distichum*; Walnuts, and also *Nelumbium luteum* of North America; the Oaks of North and Central America, and of the Mediterranean, including the Cork Oak and the Valonia Oak (*Q. Suber* and *Q. Aegilops*); for although many of those are introduced for experimental culture, they are not as yet obtainable for general distribution in this country.

It would further be desirable to transfer from the Mediterranean shores to our colony, where the climate is so similar to that of South Europe and North Africa, the various *Astragalus* bushes, which furnish the Gum Tragacanth, the Argan-tree (which is as yet but very scantily available here, and particularly valuable as affording in its fruit a most nutritive cattle-food and a vegetable tallow), the *Pistacia Lentiscus*, which yields the mastix of commerce, some of the largest fruited varieties of Olives, the Bergamotte, Lemon, the *Papyrus antiquorum*, and the *Lawsonia*, the latter yielding an excellent dye, and being moreover valuable as a hedge plant.

From Hong Kong a copious introduction of Tea seeds might be effected, the tea plant having proved well adapted to sheltered, fertile spots of Victoria; also from the same spot, the copious transmission of Hovenia, Litchi, and Logan seeds.

A remarkable plant, desirable from Peru, is the *Erythroxylon Coca*, furnishing the coca leaves, the stimulating properties of which are so well known.

The introduction of the varieties of *Rheum palmatum* and allied species, yielding the medicinal rhubarb root, would also need attention.

The various Acacia trees, from which in North Africa and South West Asia the gum arabic is collected, could be most easily naturalised in Victoria, where yet but a few individuals of two or three of



these species exist, so that seeds in quantity would be highly desirable.

It would unnecessarily extend the limits assigned to this document to enumerate all the highly useful plants which, although they have found their way more or less generally into our country, require a much wider distribution here than they have hitherto obtained. It may be suggested, however, that importations of plants or seeds of any of the more eminently useful kinds will be always acceptable in a new country like this, where forest culture is not even commenced, and where, in many districts, husbandry is, as yet, but imperfectly developed.

---

#### QUESTION 10.

Does any organization exist, or could it be easily called into existence, capable of undertaking the task of introduction?

The Acclimatisation Society of Victoria is in vigorous action, and has means for transacting any such business efficiently.

---

#### QUESTION 11.

Any remarks founded upon special knowledge, or local information, capable of being made useful to the progress of Acclimatisation, will be desirable.

---

The replies to preceding questions have been sufficiently complete to prevent the necessity of an elaborate answer to this. It may be remembered, however, that the British Admiralty has lately issued instructions to commanders of Her Majesty's ships in all parts of the world to render any aid possible in the conveyance of specimens, and through such agencies the difficulties of transmission may be greatly diminished if proper opportunities be prepared for.