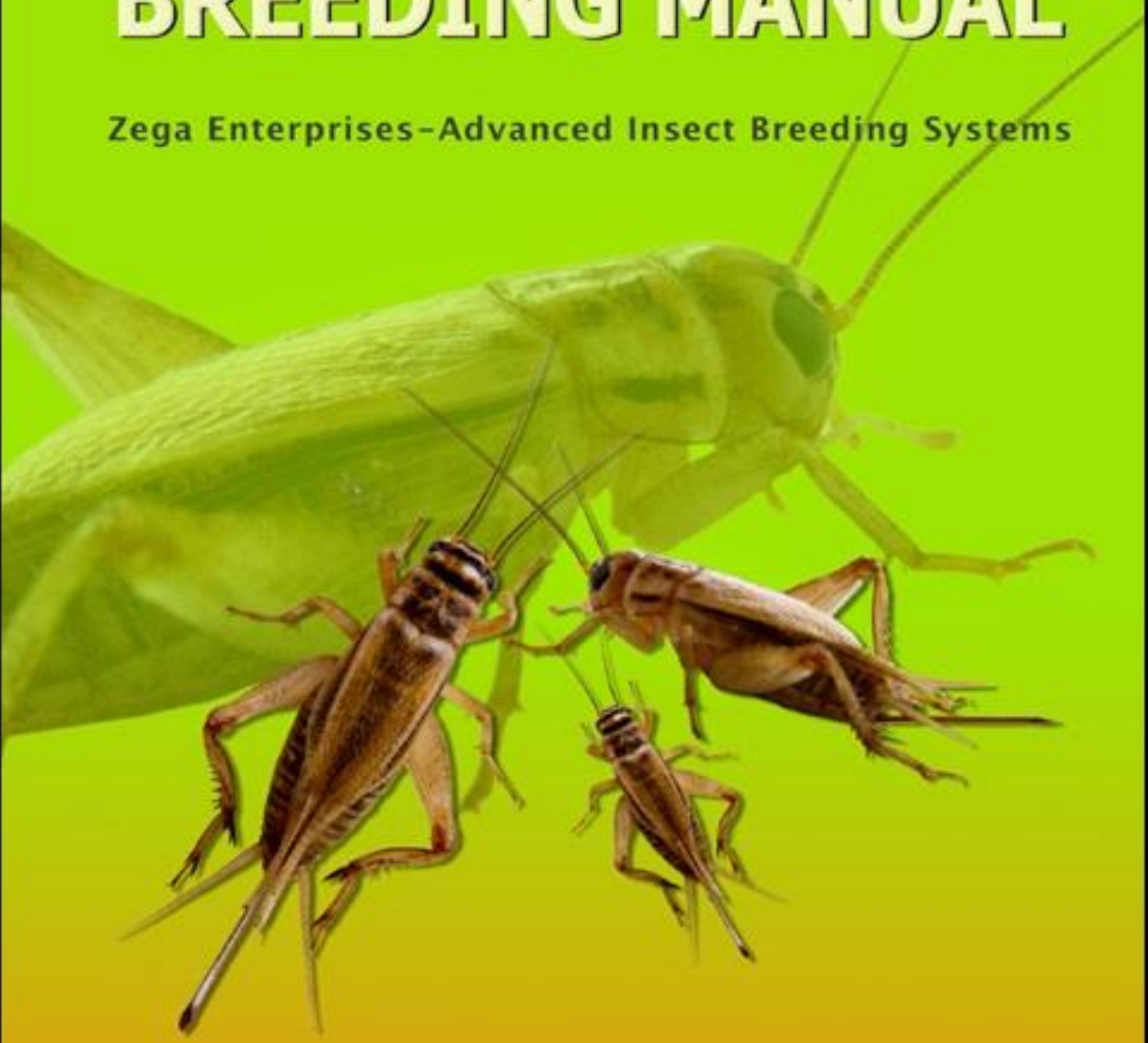
The complete
CRICKET BREEDING MANUAL

Zega Enterprises-Advanced Insect Breeding Systems



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Revolutionary New Cricket Breeding Systems

THE COMPLETE CRICKET BREEDING MANUAL

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FOREWORD

From a young age I had a fascination with wildlife, especially reptiles and insectivorous animals. This curiosity led me to become a biologist and to have a passion for keeping and breeding native wildlife. I started breeding crickets to reduce my expenses at the pet store associated with wildlife rescue and reptile keeping.

1.1 Northern Quoll *(Dasyurus hallucatus*)

For example one of my passions is rehabilitating marsupial carnivores called quolls (Australia's native cat- Refer to photo 1.1). Quolls have an insatiable appetite for live foods, with a single animal eating a pet bought container of crickets every second day. It quickly became apparent that keeping a family of Quolls over a period of many months was an expensive exercise.

To add to my hip pocket woes, were a growing number of pet monitor and dragon lizards. Like most people in today's busy lifestyle I didn't have the time to scrimmage through the garden looking for insects…and then there's the potential risk of pesticides! The solution was to breed crickets and cockroaches myself. The only problem was that I had a full time job, a young family and not nearly enough time to breed crickets in the way described in brief and incomplete internet blogs. Over time I developed techniques which greatly streamlined the process and now breeding crickets can be done with around the same amount of effort as cockroaches. After a while it became apparent that many people require a regular and fresh supply of live foods and I was soon being approached by wildlife parks, pet stores, wildlife rescue members, vets and the general public. This led me to breed them on a small to medium scale for many years and to a wide range of clients.

Breeding crickets is an ongoing experiment to find better and more efficient methods. If you have tips or experiences to share, please do not hesitate to pass on this information, for the benefit of all reptile and wildlife enthusiasts. To get you started all you need to do is follow steps 1 thought to 4 as outlined in the following section (Section 1.1- How to Use This Manual). Above all have fun, and I hope you and your animals enjoy a productive and successful breeding cricket colony!

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PART 1-

CHOOSING A BREEDING METHOD AND INTRODUCTION

CHAPTERS 1-2

1.0 INTRODUCTION

A plentiful and fresh supply of live food is the cornerstone of keeping healthy and happy insectivorous animals. Many of you will know the thrill of providing live food to your animals, and seeing how they benefit both physically and mentally.

Sadly for the consumer, purchasing crickets from a pet store is expensive and often results in the disappointing experience of purchasing dead or dying crickets. Many people attempt to breed crickets but often fail over the long term, due to the demanding maintenance required by conventional methods.

1.2 The greatest benefit of breeding crickets is a healthy animal and a happy owner.

With the systems and techniques contained in this manual you will be able to produce large amounts of crickets inexpensively, consistently and with minimal effort (around the same effort as cockroaches). This manual will benefit people who wish to:

- Reduce costs associated with providing live food for insectivorous animals such as reptiles, frogs, arachnids (spiders, scorpions) and fish.
- Produce an additional income by selling directly to the general public, pet stores and wildlife parks etc.
- Pet stores/wildlife parks and zoos which wish to breed crickets to reduce operating costs.
- Wildlife rescue carers who require large quantities of crickets to feed insectivorous mammals, birds, reptiles and amphibians.
- Wildlife rescue groups that wish to raise money and provide inexpensive feeder crickets for their members or as a fund raiser.
- Crickets are now found in gourmet restaurants and are bred as a mainstream food source in Asia.
- University and research Institutes
- Fishermen

Crickets are prolific breeders which lend themselves to being bred for commercial production. With a little extra effort, you may wish to add extra containers and sell excess stock to the public and turn an expense into an income. In developing this manual a number of options are provided from simple set ups suitable for small collections to more elaborate systems suitable for commercial production.

Below is a summary of the information contained in this manual:

- Systems which minimise maintenance in conjunction with automated feeding/watering devices.
- Efficient container design, which is durable, maximises growth rates, and saves time in maintenance and feeding activities.
- Innovative breeding methods which for the first time allow crickets to be bred with significantly less maintenance, without offensive odours and similar amount of effort as cockroaches.
- Plenty of tips on how to save time, effort and money through energy conservation or efficient food storage and processing.
- Details how to manage a commercial colony from breeding through to dispatch, transport and marketing.
- Plenty of tips to make the dispatch of crickets to your animals with minimal effort.

This manual is an accumulation of years of experience and experimentation which will provide you with a short cut to successful cricket breeding.

1.1 HOW TO USE THIS MANUAL

It is said that "A Picture Paints a Thousand Words". Throughout the manual we have provided more than, 230 photos, tables and diagrams to help you visualise our systems. This manual has a lot of information which relates to both private and commercial production. We have separated small and large scale production methods (into different Parts) so you won't need to read all sections, just sections relevant to you.

To do this is as simple as following steps 1 through to 4, as outlined below:

Step 1 ⇨ (Part 1)- Choosing a Breeding Method and Introduction

This book covers two breeding methods, one for small scale production (Zega Substrate Breeding System) and another for large scale production (Batch Breeding System). The first step is to read the following section (Section 1.2-Which Breeding System do I Choose") and determine which method is best for you.

Step 2 ⇨ (Part 2)- General Techniques (For both Breeding Systems)

As the name suggests, these are general techniques that are applicable to both small and large scale breeding methods. Part 2 should be read by everyone.

Step 3 ⇨ (Part 3)- Small Scale Breeding (Zega Substrate Breeding System)

Read this section only if you are a small scale breeder (includes small scale commercial). If you are a large scale producer, skip this section and read Part 4 instead.

Step 4 ⇨ (Part 4)- Large Scale Breeding (Batch Breeding System)

Read this section only if you are a large scale breeder. If you are a small scale breeder, skip this section and read Part 3 instead.

Author's Recommendation

Where multiple options are provided for a method, look out for this symbol which shows the authors preferred method and would be a good starting point for most people.

To cover all skill levels from beginner to advanced, we have included both "Basic" and "Efficient Methods".

Basic Method

These conventional methods are not necessarily the most efficient or durable options, however they are quick and easy to construct. This is a good starting point for beginners, who can then move to more efficient method at a later time.

Efficient Method- Overview

People who wish to build more advanced techniques that are durable, productive with lower maintenance, should refer to the "Efficient Method" sections. These sections are essential for commercial production. They may involve a little extra effort upfront, however they will repay this extra effort many times over. The "Efficient Method-Overview" provides an overview of the process. Tables relating to these sections have a green background colour for quick reference.

Efficient Method- Detailed Instructions

These sections provide detailed instructions for the "Efficient Method". They are very descriptive and provide a tried and tested formula to save you effort with unnecessary experimentation. Tables which relate to these sections have an orange background colour for quick reference.

If in doubt, just refer to the photos…

1.2 WHICH BREEDING SYSTEM DO I CHOOSE

Many people unwittingly provide too many insects to their animals, when most species do better when you alternate their diet with fresh fruit/vegetables/meats and occasional fasting. As insects are high in fats and energy this can result in overweight and malnourished animals (common with bearded dragons). Be sure to familiarize yourself with the correct eating requirements of the species you are feeding. Once you know how often your animal requires insects, you can work out how many crickets they require per week.

As outlined above there are two cricket breeding methods to choose from as outlined below.

1) Substrate Breeding System (Private use and Small Scale Commercial)- Part 3 (Chapter 9)

- Each substrate breeding container will generate approximately 1 pet bought container of crickets per week (approximately 33 large crickets/container).
- The waste wet food generated from an average family (two adults, two kids) can produce sufficient crickets to support 4 substrate breeding containers. Additional containers will require wet food supplementation. Four containers will feed approximately 3 to 12 adult bearded dragons (depending on cricket consumption rate chosen)- Refer to Section 8.4 (Economics) for further details.
- I would recommend this system for someone who wants to breed up to 4-6 pet bought containers of crickets per week (6 containers-approximately 200 large crickets/week). This equates to approximately 800 large crickets/month. More containers can be added as required to meet needs. Larger quantities of crickets I would recommend using a Batch Breeding System.
- Six substrate breeding containers can fit into a 1.0m wide, 1.7m high, 0.6m deep (3.28 feet wide, 5.58 high, 2.0 deep) stacked shelving (3 shelves above each other, two containers on each shelf)- Refer to photo 6.3.
- Further details of this system including advantages and disadvantages are outline in Chapter 9.0 (Zega Substrate Breeding System).

2) Batch Breeding System (Medium to Large Scale Commercial Production)- Part 4 (Chapter 10.0)

- Where you want to produce more than 800-1000 large crickets per month I would generally recommend the Batch Breeding System.
- This system is very productive producing more than 3 times the number of crickets per breeding container (6 containers produce approximately 700 large crickets per week) however it is more labor intensive, involves more components and needs to be actively managed.

- Further details of this system including advantages and disadvantages are outline in Chapter 10.0 (Batch Breeding System).