

# AVIAN GENETIC CALCULATOR

Version 1  
2005

Created by K Yorke

## GENETIC CALCULATOR Help File

© 2016 K Yorke

# GENETIC CALCULATOR Help File

© 2016 K Yorke

All rights reserved. No parts of this work may be reproduced in any form or by any means - graphic, electronic, or mechanical, including photocopying, recording, taping, or information storage and retrieval systems - without the written permission of the publisher.

Products that are referred to in this document may be either trademarks and/or registered trademarks of the respective owners. The publisher and the author make no claim to these trademarks.

While every precaution has been taken in the preparation of this document, the publisher and the author assume no responsibility for errors or omissions, or for damages resulting from the use of information contained in this document or from the use of programs and source code that may accompany it. In no event shall the publisher and the author be liable for any loss of profit or any other commercial damage caused or alleged to have been caused directly or indirectly by this document.

Printed: June 2016

## **Publisher**

*K YORKE  
10 GWANDALAN CLOSE  
BRANDY HILL, NSW, 2324  
AUSTRALIA*

*kyorke@tpg.com.au*

*<http://bit.ly/yorkestuff>*

---

# Table of Contents

<b>Part I Contents</b>	<b>5</b>
<b>Part II Introduction</b>	<b>5</b>
<b>Part III System Requirements</b>	<b>6</b>
<b>Part IV Installing</b>	<b>6</b>
<b>Part V Starting GENETIC CALCULATOR</b>	<b>7</b>
<b>Part VI Opening Screen</b>	<b>7</b>
<b>Part VII Mating Window</b>	<b>7</b>
<b>Part VIII Print Preview</b>	<b>8</b>
<b>Part IX File Open</b>	<b>9</b>
<b>Part X File Calculate</b>	<b>10</b>
<b>Part XI File Print Setup</b>	<b>10</b>
<b>Part XII Reset</b>	<b>11</b>
<b>Part XIII Window Menu</b>	<b>11</b>
<b>Part XIV Close</b>	<b>11</b>
<b>Part XV Print</b>	<b>11</b>
<b>Part XVI Export</b>	<b>12</b>
<b>Part XVII Page</b>	<b>12</b>
<b>Part XVIII Zoom</b>	<b>12</b>
<b>Part XIX Troubleshooting</b>	<b>12</b>
<b>Part XX Help; Help For This Window</b>	<b>13</b>
<b>Part XXI Other Products</b>	<b>13</b>

**Index****18**

# 1 Contents

## ***GENETIC CALCULATOR USER MANUAL CONTENTS***

[Top](#) [Next](#)

### INTRODUCTION

#### GETTING STARTED

[System Requirements](#)  
[Installing GENETIC CALCULATOR](#)  
[Starting GENETIC CALCULATOR](#)  
[Opening Screen](#)  
[Mating Screen](#)  
[Print Preview Screen](#)

#### USING GENETIC CALCULATOR

##### **MAJOR MENUS**

##### FILE Menu

[Open](#)  
[Calculate](#)  
[Print Setup](#)

##### [MALE/FEMALE Menu](#)

##### [WINDOW Menu](#)

##### HELP Menu

[For This Window](#)  
**Contents** Shows this page.  
[Other Products](#)

##### **PRINT PREVIEW MENUS**

##### [CLOSE Menu](#)

##### [PRINT Menu](#)

##### [EXPORT Menu](#)

##### [PAGE Menu](#)

##### [ZOOM Menu](#)

##### [WINDOW Menu](#)

##### HELP Menu

[For This Window](#)  
**Contents** Shows this page.

### TROUBLESHOOTING

# 2 Introduction

## **INTRODUCTION**

[Top](#) [Previous](#) [Next](#)

GENETIC CALCULATOR models genetic traits of parents and calculates which traits are

inherited by their offspring including theoretical percentages of each trait amongst those offspring.

A knowledge of genetics is not required to use GENETIC CALCULATOR.

For the more technically minded, GENETIC CALCULATOR can calculate the offspring involving many inheritance types including:- Recessive, Dominant, Partial Dominant, Sex-Linked and Polygenic. It also takes into account special cases of multiple alleles, linkage, multiple crossovers, lethal combinations, penetrance and expressivity.

### 3 System Requirements

#### SYSTEM REQUIREMENTS

[Top](#) [Previous](#) [Next](#)

GENETIC CALCULATOR requires an IBM Personal Computer or 100% Compatible with a Pentium or better processor, a recommended minimum 64MB of RAM, running WINDOWS '95 or better operating system, hard disk drive, CD drive (for installation) and printer. Screen resolution has been optimised for 1024 x 768 but 800 x 600 is also suitable. (Later versions of Windows may require more RAM)

### 4 Installing

#### INSTALLING GENETIC CALCULATOR

[Top](#) [Previous](#) [Next](#)

GENETIC CALCULATOR must be run from a hard disk. To install GENETIC CALCULATOR on your hard disk, insert the Installation disk CD and then

Press Windows START BUTTON

Select RUN

In the run dialog box type **d:\setup.exe** (N.B. This assumes that your CD is drive d:. If your CD is another letter e.g. e:, f: etc then use that letter instead)

Press OK

The installation program commences. A dialog appears prompting the user for a directory to install. It is highly recommended that you accept the default setting.

This starts the installation program which copies the relevant files from the CD to the hard disk.

## 5 Starting GENETIC CALCULATOR

### STARTING GENETIC CALCULATOR

[Top](#) [Previous](#) [Next](#)

To start GENETIC CALCULATOR normally from its installed menus

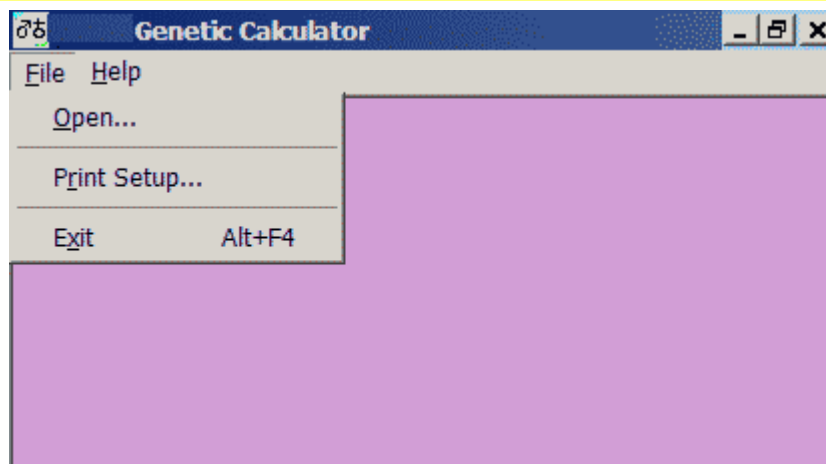
*Press Windows Start Button  
Select Programs  
Select YORKE Applications  
Select Genetic Calculator*

Alternatively,  
Run BIRDCAL1.EXE in the installed directory from the Windows Run command, Windows Explorer or My Computer.

## 6 Opening Screen

### OPENING SCREEN

[Top](#) [Previous](#) [Next](#)



The opening screen displays an empty work area and a menu bar at the top of the window. To begin using the program for genetic predictions it is necessary to open a mating Mating Window in the work area. Each mating window contains one male and female parent with their genetic traits. To open a Mating Window, select [FILE/OPEN](#) from the menu in the opening screen.

Multiple Mating Windows may be open simultaneously.

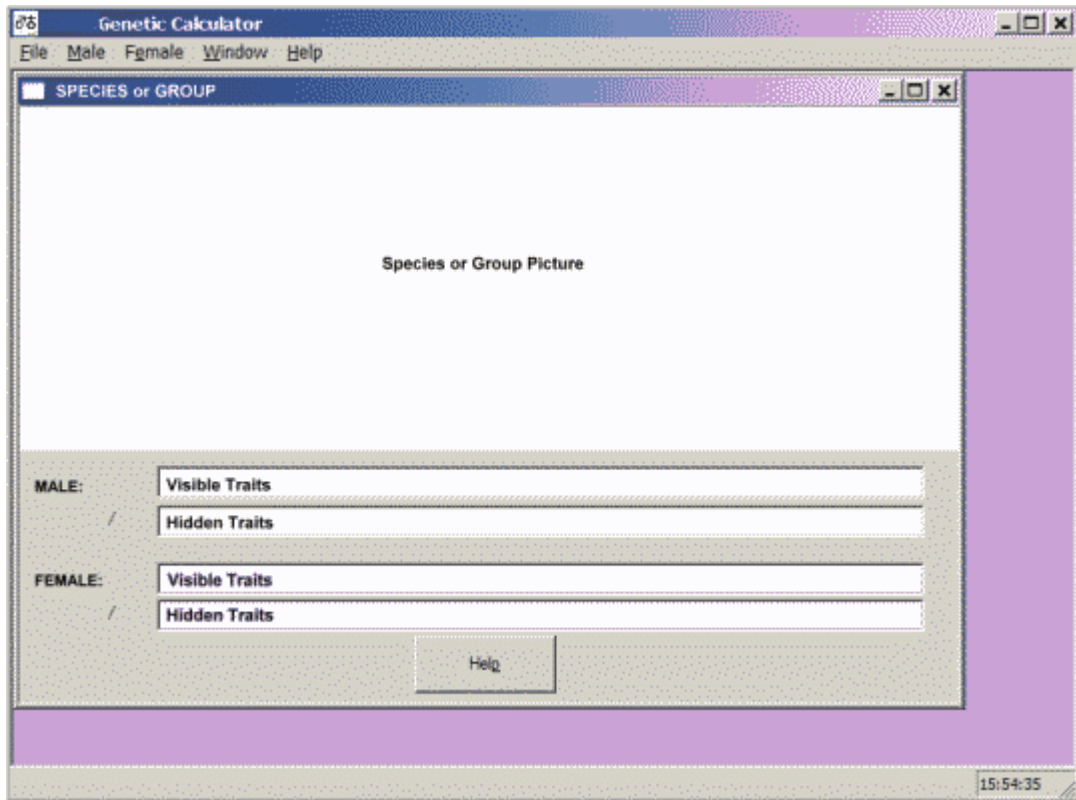
## 7 Mating Window

### MATING WINDOW

[Top](#) [Previous](#) [Next](#)

The Mating Window is used to fully describe the genetic traits of both parents and provides

access to the genetic calculation process for the defined pairing. The full description of each parent is displayed in the lower panel of the Mating Window.



The male and female parent descriptions are progressively built up one trait at a time using the MALE and/or FEMALE menu selections. The items in the [MALE](#) and [FEMALE](#) menus will vary depending on which Species or Grouping was selected for the Mating Window in use. For more detailed help on the MALE and FEMALE menus, open a Mating Window and press the HELP button at the base of the Mating Window or select [HELP/FOR THIS WINDOW](#) while the Mating Window is active. This ensures help specific to that particular Mating Window and its species or grouping is shown.

## 8 Print Preview

### PRINT PREVIEW WINDOW

[Top](#) [Previous](#) [Next](#)

This window is displayed after a FILE/CALCULATE menu has been performed on a Mating Window. Its purpose is to display in a report page format the theoretical calculations of progeny from the parents described in the active Mating Window.

This report can be displayed on screen, sent to printer or exported to a computer file for possible future use.

The Print Preview Window has its own unique menus and features such as [PRINT](#), [EXPORT](#), [PAGE](#), [ZOOM](#) etc.





pressing the OK button.

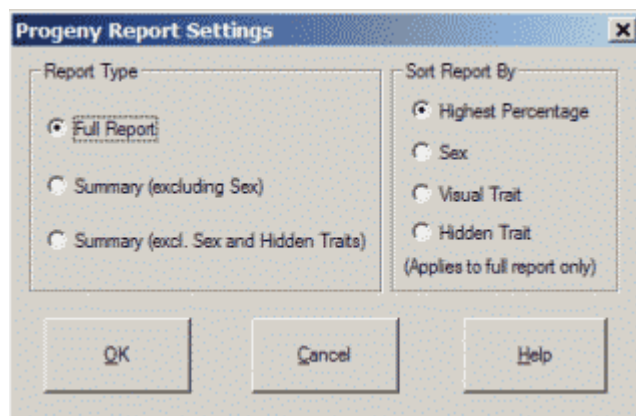
## 10 File Calculate

### FILE CALCULATE

[Top](#) [Previous](#) [Next](#)

This menu is only visible when an open Mating Window is active. This menu performs the calculation of progeny from the parents described in the currently active Mating Window.

A dialog box is displayed showing options for how the calculation results will be displayed.



**Full Report** - displays all progeny including all visual and hidden traits. The information in the report may be sorted by either Highest percentage, Sex, Visual Trait or Hidden Trait for ease of reading and presentation.

**Summary Report Excluding Sex** - The sex of the progeny is normally reported for each progeny type in the Full Report. In this Summary report the sexes of the progeny are combined and a summary of progeny types is given excluding sex.

**Summary Report Excluding Sex** - As per the above Summary Report Excluding Sex but additionally, hidden traits are ignored and the progeny are combined and summarised based on visual appearance.

## 11 File Print Setup

### FILE PRINT SETUP

[Top](#) [Previous](#) [Next](#)

This option starts the Windows Printer Setup for your own printer. And allows the modification of printer settings.

For more detailed help on using the Windows Printer Setup, run FILE/PRINT SETUP and then select Help from within the Windows Printer Setup.

Page Size:- By default all reports are A4 in size.

## 12 Reset

### MALE / FEMALE MENU

[Top](#) [Previous](#) [Next](#)

The MALE (and FEMALE) menus are used to progressively build up the description of each male (and female) parent. The menu options will vary depending on the Species or Group associated with that Mating Window.

The RESET menu option is always present and is a quick method of deselecting any and all of the lower menu options that were previously selected, thus reverting the male (or female) description back to its original default settings when the Mating Window was first opened.

For more detailed help on the MALE and FEMALE menus, open a Mating Window and press the HELP button at the base of the Mating Window or select [HELP/FOR THIS WINDOW](#) while the Mating Window is active. This ensures help specific to that particular Mating Window and its specific menus for that species or grouping is shown.

## 13 Window Menu

### WINDOW MENU

[Top](#) [Previous](#) [Next](#)

**TILE** If more than one window is open in the work area this menu resizes and repositions all windows so they no longer overlap.

**CASCADE** If more than one window is open in the work area this menu resizes and repositions all windows in a cascaded pattern.

**CLOSE ALL** This closes all windows in the work area leaving an empty work area.

## 14 Close

### CLOSE

[Top](#) [Previous](#) [Next](#)

This menu closes the Print Preview Window.

## 15 Print

### PRINT

[Top](#) [Previous](#) [Next](#)

This menu sends the displayed progeny report to a printer.

## 16 Export

### EXPORT

[Top](#) [Previous](#) [Next](#)

This menu enables the progeny report to be exported to a computer file. The file formats supported are HTML, RTF and TEXT. Once created, these files can be used and edited in other third party programs.

## 17 Page

### PAGE

[Top](#) [Previous](#) [Next](#)

The Page menu items scroll back and forth through a multiple page progeny report. Options are FIRST page, NEXT page, PREVIOUS page, LAST page or GO TO a specific page.

## 18 Zoom

### ZOOM

[Top](#) [Previous](#) [Next](#)

This menu enables the Print Preview to be magnified by zooming IN or zooming OUT.

## 19 Troubleshooting

### TROUBLESHOOTING

[Top](#) [Previous](#) [Next](#)

#### PRINT PREVIEW WINDOW DOES NOT APPEAR

Possible causes are:-

1) You do not have a printer installed in Windows. Windows must have at least one printer installed in order for the GENETIC CALCULATOR to display the Print Preview Window. The report is normally previewed on screen using the printer settings. If no printer is installed then these printer settings cannot be used and hence no on-screen preview. A printer merely needs to be installed in Windows, not necessarily turned on nor even physically connected in order for the

on screen preview to appear. A printer is normally installed from Windows Control Panel and may require software drivers provided by the printer manufacturer.

2) Your computer may have insufficient memory (RAM) available for use the Print Preview function. If your computer physically has sufficient memory chips then you may have too many programs running simultaneously in Windows thus consuming excessive memory. Try closing some unwanted programs and also check for other memory resident tools in use.

## 20 Help; Help For This Window

### HELP / FOR THIS WINDOW

[Top](#) [Previous](#) [Next](#)

This displays a help window containing information relevant to the current active Mating Window, Print Preview Window or empty work area.

## 21 Other Products

### OTHER PRODUCTS

[Top](#) [Previous](#)

New products and upgrades to existing products are constantly being added to the range by the author.

All products available from:-

K Yorke  
 10 Gwandalan Close  
 Brandy Hill, NSW, 2324  
 Australia  
 Ph/Fax 61 (02) 49 886539  
 email kyorke@tpgi.com.au  
 web www2.tpg.com.au/users/kyorke

# BIRDREC

## The Ultimate in Computerised Record Keeping Systems for Bird Keepers.

Stores

Ring Numbers, Ring Year, Species ...  
 Visual and/or Genetic Descriptions  
 Show Results, Traits, Vices, General Comments... (Up to 64,000 characters per bird)  
 Families, Bloodlines  
 User Defined Codes, Pointscore Systems, Physical Measurements  
 Eggs Laid, Eggs Hatched, Surviving Chicks... (Unlimited Number)  
 Pairing Comments, Breeding Periods, Cage Numbers  
 Died/Sold Details, Owner-bred or Purchased  
 Parentage/Ancestors, Descendants  
 Income and Expenditure, Bird Sales and Purchases, Feed Costs etc  
 Photographs of Birds and Bird Events  
 Breeder's Diary, Feeding and Medicine Routines, Show Dates, To Do List and History  
 Personal Contacts and Address Book

and much more

calculates and produces

Pedigree Charts, Descendant Charts...	(Stores Unlimited Generations)
Breeding Registers..	(Includes Complete Life History of a Bird)
Inbreeding and Bloodline Report	
Aviary Stocklist Reports...	(Several Types)
Breeding Statistics Reports...	(Several Types)
Unlimited User Defined Reports...	(For Special Needs, Several Types)
Diary Report	
Photo Album	
Income and Expenditure Reports..	(Several Types)

features

Menu Driven for Ease of Use, Minimises Typing  
Context Sensitive Help Screens and Online User's Manual  
Built-in Data Backup Facility for Data Security  
Runs on Pentium Computer with 32MB RAM, Windows '95 or better, 20MB Free Hard Disk Space and CD Drive (for installation)

# AVIAN GENETIC CALCULATOR

## BIRD PROGENY COLOUR & VARIETY PREDICTOR

AVIAN GENETIC CALCULATOR is a powerful tool for breeders of many caged bird species, which tells the breeder what colour progeny and expected percentages of each will result from different bird colour matings as well as providing some on-screen photographs of many bird species and their colour mutations.

### BEYOND BOOKS OF TABLES

Some books have been published in the past containing tables of possible simple matings for a limited number of bird species. AVIAN GENETIC CALCULATOR goes beyond anything possible with written tables and includes inheritance methods of Dominant, Recessive, Partial Dominant, Multiple Alleles, Sex-Linkage, Polygenic, Lethal, Multiple Crossovers, Penetrance and Expressivity. AVIAN GENETIC CALCULATOR calculates even the most difficult mating in seconds and makes those old tables and pencils and paper redundant, not to mention that AVIAN GENETIC CALCULATOR makes it all seem so simple. **NO KNOWLEDGE OF GENETICS REQUIRED.**

### DOZENS OF SPECIES, MILLIONS OF COLOUR COMBINATIONS

AVIAN GENETIC CALCULATOR is capable of calculating the results of colour matings involving Zebra Finch, Gouldian Finch, Budgerigar, Abyssinian Lovebird, Adelaide Rosella, African Grey Parrot, Alexandrine Parrot, Blue & Gold Macaw, Blue Fronted Amazon, Blue Winged Parrot, Bourke Parrot, Cockateil, Crimson Rosella, Crimson Winged Parrot, Dusky Headed Conure, Eastern Rosella, Eclectus Parrot, Elegant Parrot, Festive Amazon, Galah, Golden Crowned Conure, Hooded Parrot, Indian Ringnecked Parrot, King Parrot, Lineolated Parrot, Mallee Ringnecked Parrot, Maroon Bellied Parrot, Mealy Amazon, Moustache Parrot, Musk Lorikeet, Nanday Conure, Pacific Parrotlet, Patagonian Conure, Peachfaced Lovebird, Plum Headed Parrot, Port Lincoln Parrot, Princess Parrot, Purple Crowned Lorikeet, Quaker Parrot, Rainbow Lorikeet, Red Fronted Kakariki, Red Lored Amazon, Red Collared Lorikeet, Red Rumped Parrot, Regent Parrot, Scaly Breasted Lorikeet, Scarlet Chested Parrot, Senegal Parrot, Sharp Tailed Conure, Slaty Headed Parrot, Sun Conure, Superb Parrot, Turquoise Parrot, Western Rosella, White Crowned Pionus, White Eye Ring Group Lovebirds, White Fronted Amazon, Yellow Naped Amazon, Yellow Rosella.

### PHOTOGRAPHS OF MANY VARIETIES

Over 160 colour photographs of various bird species, colours and varieties can be displayed on the screen

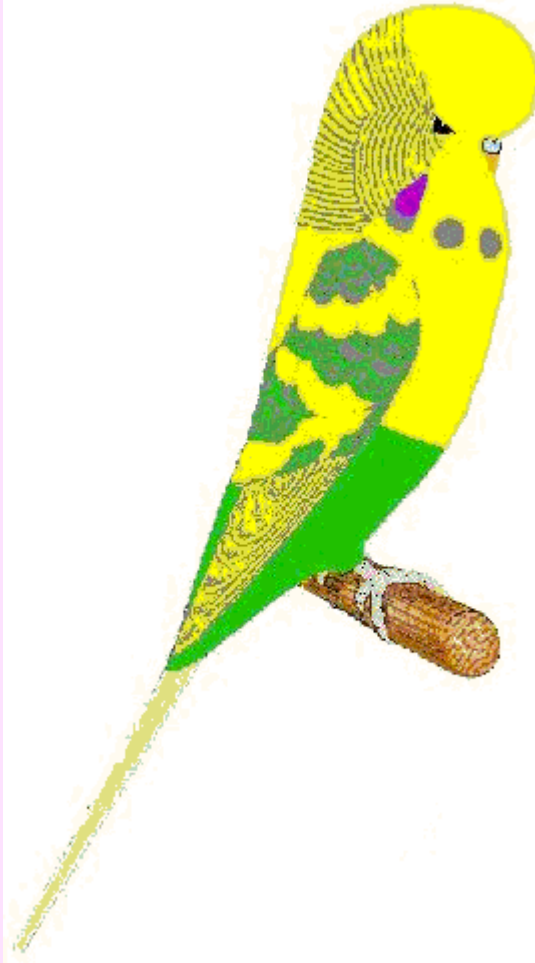
# BUDGEN

## COMPUTERISED BUDGERIGAR COLOUR ILLUSTRATION & GENETICS MADE EASY

Draws full colour GRAPHICAL pictures of most colours and varieties on the screen including multiple combinations of varieties.

**Cock Illustration**

Opaline Light Green Greywing Dan Rec Pied



Also calculates results of colour matings involving

Light, Dark & Olive Green, Sky Blue, Cobalt, Mauve, GreyGreen, Grey, Australian, Mutant 1 & Mutant 2 Yellowfaces, Violet, Greywing, Clearwing, Yellow, White, Cinnamonwing, Opaline, Albino, Lutino, Lacewing, Australian Dominant Pied, Continental Clearflight Pied, Danish Recessive Pied, Dark-Eyed Clear, Spangle, Australian (German), English & Scottish Fallow, Saddleback, Tufted, Half & Full Circular Crested, Australian Clearbody (Darkwing), Texas Clearbody, Slate, Faded

**AND ANY POSSIBLE MULTIPLE COMBINATION OF THESE.**

No knowledge of genetics required.

# BUDGERIGAR VARIETY BIBLE

Several years in the writing, BUDGERIGAR VARIETY BIBLE is a new budgerigar "book" on a CD which is a comprehensive guide to the colours and varieties of budgerigars around the world.

The book looks at all the mutant colours and varieties and gives details of their

- History - who first bred them or recognized them and where and when.
- Naming - including local, international, historical and genetic names.
- Variety Features - details of what makes them different from the wild bird and other varieties.
- Breeding Rules - Full breeding and genetic information.
- Variety Faults - The common problems or traits associated with the variety.
- Photographs - Photos of each variety in many colours and in combination with other varieties.
- Expert Information - Other articles in great detail giving the best information available on varieties including many articles and photos from the breeders of the original mutations.

There is detailed information about **MORE THAN 50 INDIVIDUAL BUDGERIGAR VARIETIES** including Light Green, 2 Dark Factors, Blue, 3 Greys, Dilute, Greywing, Clearwing, 2 Inos, 5 Fallows, Anthracite, Slate, Violet, Opaline, Cinnamon, 2 Brownwings, 2 Fadedes, 5 Clearbodies, Darkwing, 4 Pies, Mottle, Blackface, 3 Yellowfaces, Polydactyl, Stargazer, Crested, Spangle, Black, Saddleback, Feather Duster, Halfsider and several other rare and/or extinct varieties.

Included is **MORE THAN 600 FULL COLOUR PHOTOGRAPHS** and diagrams.

More than 170 computer pages, equivalent to approximately **500 PAGES** of written text, tables, photos and diagrams.

A separate section looks at particular features of budgerigars such as cheek patch colour, wing markings, spots, saddle markings, tail, eyes, feet etc in detail.

Another section looks at **BREEDING RULES AND GENETICS** of budgerigars in general and tells how the genetics works in simple terms, as well as describing some of the special cases involved such as Sex-linkage, crossovers etc.

A **WORLDWIDE LIST OF BUDGERIGAR BREEDERS & CLUBS** is given in another section with contact details including email and weblinks. Click and you are immediately sent to the website or can send them an email. ( You need your own Internet service and email program to make full use of this feature.)

# EQUINE GENETIC CALCULATOR

## HORSE & DONKEY COLOUR PREDICTOR

EQUINE GENETIC CALCULATOR is a powerful tool for breeders and enthusiasts of horses and donkeys, which tells the breeder what colour progeny and expected percentages of each will result from different colour matings as well as providing on-screen photographs of some colour mutations.

### BEYOND BOOKS

Some books have been published in the past containing some information on possible simple matings. EQUINE GENETIC CALCULATOR goes beyond anything possible with written books and tables and includes inheritance methods of Dominant, Recessive, Partial Dominant, Multiple Alleles, Sex-Linkage, Polygenic, Lethal, Multiple Crossovers, Penetrance and Expressivity.

EQUINE GENETIC CALCULATOR calculates even the most difficult mating in seconds and makes it all seem so simple. **NO KNOWLEDGE OF GENETICS REQUIRED.**

### THOUSANDS OF COLOUR COMBINATIONS

EQUINE GENETIC CALCULATOR is capable of calculating the results of the following colour matings including multiple combinations:-

**HORSES:-** Bay, Brown, Black, Light Bay, Chestnut, Grey, Roan, Paints (including Sabino, Tobiano, Frame Overo, Splashed White), Dun, Perlino (including Cremello, Buckskin, Palamino), Appaloosa, Flaxen, Champagne, White, Mealy. Also Heart Score.

**DONKEYS:-** Bay, Black, Dun, Sorrel, Ivory, Spotted, Dark Points.



# THE SHOW MANAGER

## COMPUTERISED EXHIBITION MANAGEMENT.

THE SHOW MANAGER is a powerful tool for managing many of the aspects of organising and administering exhibitions and shows. The program is equally useful, no matter whether the exhibition caters for cage birds, dogs, livestock, cookery, artwork, craftwork or any other multitude of exhibits.

### HAND WRITTEN BOOKWORK IS A THING OF THE PAST

THE SHOW MANAGER takes you through all the tasks of running a show from start to finish including:-

- Production of mailing labels for sending potential exhibitors promotional material, entry forms and other information about the upcoming exhibition.
- Production of a Show Schedule of classes and special awards for use by exhibitors and organisers.
- Automated acceptance of exhibitor and exhibit entries.
- Calculation of entry fees.
- Handles individual or teams competitions.
- Registers arrivals and non-arrivals at the show.
- Production of all forms, labels, reports, catalogues for use by the exhibitors, judges, spectators and organisers.
- Automated recording of all judged placings.
- Automated production of all prizecards, graphical diplomas, labels and judging results reports.
- Automatic calculation of all prizemoney and/or pointscore systems for individual exhibitors or teams.
- Production of results catalogues for post-show promotion and information.
- Stores all records for future use and retrieval at a moments notice.

### TIME SAVINGS

THE SHOW MANAGER has the potential to save hours of time and effort for show organisers before, during and after the exhibition.

### REDUCES HUMAN ERRORS

THE SHOW MANAGER has many in-built error checking procedures to help prevent double entries, missing exhibits etc thus ensuring that the show runs smoother.

# Index

## - C -

Contents 5

## - E -

Export 12

## - F -

Female Menu 11  
Female Reset 11  
File Calculate 10  
File Open 9  
File Print Setup 10

## - H -

Hardware 6  
Help 13

## - I -

Installing 6

## - M -

Male Menu 11  
Male Reset 11  
Mating Window 7

## - O -

Opening Screen 7  
Other Products 13

## - P -

Page 12  
Print 11  
Print Preview 8

Print Preview Close 11

Printer Setup 10

## - S -

Starting 7

System Requirements 6

## - T -

Troubleshooting 12

## - W -

Window Cascade 11

Window Close All 11

Window Menu 11

Window Tile 11

## - Z -

Zoom 12