



BIBBA

**THE NATBIP
RECORD CARD**

A GUIDE FOR USE

**PREPARED BY
BIBBA**

INTRODUCTION

A WORD ABOUT NATBIP...

By Jo Widdicombe, President – BIBBA

The National Bee Improvement Programme Guide, or the NatBIP Guide for short, is an online reference source, which will be available on the BIBBA website. It is for all participants in the Improvement Programme to make use of as they wish. The Guide will eventually have information, and links to other useful sources, on every aspect of bee improvement. It can be referred to, as necessary, or downloaded as a hard copy for storage in an A4 binder.

This will be a dynamic information source being updated and added to, as we receive queries or feedback from those using the site, with new information added, as appropriate, for the benefit of all. In this way everyone taking part in the scheme can have an active role in the sharing of ideas and information according to their experiences. The NatBIP Record Card will be one of the main planks of the National Bee Improvement Programme (NatBIP) as it will allow all beekeepers to assess and record the qualities of their colonies, and to select the best queens for rearing from, and the queens they would like to replace, or at least remove from a designated mating area.

Many beekeepers will already be familiar with keeping records for the everyday management of their colonies, but records for assessing the qualities of our bees require a differently designed card. As individuals, we need to decide what qualities we are looking for in our bees, and therefore, which qualities should be assessed. If we are working with other beekeepers, in an improvement group, or in an association, agreement on the desired qualities will be one of the first discussions. Assuming agreement can be reached, and that members are still talking to each other, the next debate will be what system of recording and assessment should be used. Even in just one aspect of beekeeping, there may be many different views. For this reason, in NatBIP, although we will be free with our suggestions of methods to use, and the reasons why, and we will also be happy to publicize things that work for other participants. Nothing will be gained by being too prescriptive in laying down rules that must be obeyed. We want beekeepers to think for themselves and make the best decisions for their own circumstances. The aim of NatBIP is to be as inclusive as possible, to get the maximum participation. As we have said before, one rule that we have made is for beekeepers to aim not to use imported stock*, or the offspring of recently imported stock. This stipulation is because, firstly, imports represent a biosecurity risk and, secondly, by importing new untested genes into an area we negate any progress that is being made in producing a more locally adapted bee.

There is enough genetic diversity within the bees already present to produce any qualities that we wish to see in our bees. Ruling out the use of imports will, unfortunately, rule out some beekeepers from the scheme, but we feel that that is a minimum requirement for the Programme to achieve success. For the sake of inclusivity, we are, to some extent, taking a leap of

faith that through the forces of natural and artificial selection, with no added imports, we will all find ourselves going in a similar direction so that we can, at last, achieve a sustainable improvement in our bees. To get back to the Record Card, is it possible to produce a card that will satisfy everyone's demands?

I think the answer is probably not, but we can put forward suggestions for cards that beekeepers can, either use as they are, or modify to suit their own needs. So, in the NatBIP Guide there may be more than one card available. Beekeepers will be able to choose one to suit their needs, and if necessary, modify to their liking. One of the guiding principles of NatBIP is that, to a great extent, beekeepers can tailor things to their own needs, as this is the best way of catering for all the different circumstances. Other versions may come to light that people have found work well for them and these can be added to the Guide for others to take advantage of. In Cornwall, in the Bee Improvement Programme for Cornwall (BIPCo), we have used a record-keeping system that has worked well for us for more than 10 years. We have made some changes every year but have basically stuck to the same formula. This has now evolved into a NatBIP Record Card which will be on offer in the Guide with detailed instructions for its use. We will offer it in a pdf format for use as it is, and in Word, so that beekeepers can modify it to suit their needs. If other systems of record keeping prove their worth, then these too can be offered in the Guide.

Very best wishes for the forthcoming season.

JO WIDDICOMBE
PRESIDENT – BIBBA

**Imported stock – Stock brought in from outside of the NatBIP area, that is Britain, Ireland and associated islands, and usually of non-native sub-species.*



THE NATBIP COLONY RECORD CARD

A GUIDE TO USE

Jo Widdicombe explains how to use the colony record card.

This card is designed to be used for normal hive management and for the assessment of the qualities of colonies for bee improvement purposes. One card to be used for each colony as a record of the queen's performance.

The summaries at the end of the season can be collated onto the Apiary Record Card which will have one row per colony giving an overview of all the colonies in an apiary.

The NatBIP 1 card is designed around the traits of: Native Appearance, Temperament, Swarming Propensity, Health/Brood Pattern/Over-wintering and Honey Production and Relative Honey Yield (RHY).

It is available as a pdf and in Word format to allow individuals and groups to modify according to their needs.

So, breaking the record card into its component parts, let's look at how we envisage it will work.

It should be noted that the system uses a 1 to 5 scale (5 being best).

TOP TABLE

This is simply a 'Housekeeping Box' to help you orient and identify the colonies / apiaries you are working with.

THE TOP 2 ROWS FOR 2020

The top 2 rows for 2020 provide you with space to record a summary brought forward from previous year. These two rows are only relevant if the colony has the the same queen as previous year or is a daughter of the previous queen.

THE TOP 2 ROWS FOR 2021

Over-Wintering Strength 1-5 (Weak - Strong)

Usually assessed on first inspection in April and compared to the apiary average or your own standard.

Relative strength in spring:

- 1 and 2 weaker than average;
- 3 is average;
- 4 and 5 stronger than average.

**The strength of colony going into winter may be a factor. A nuc may be weaker in spring than full-size colony.*

MAIN TABLE 2021

Colonies to be assessed at each inspection but only need to assess qualities as appropriate.

Do not need to fill in every box at every inspection.

2021 = Date of inspection

Insp. by = Inspected by - useful if working in a group or there are different beekeepers involved.

Col. Size = Colony Size - in terms of bees covering frames in brood box and super

e.g. 0.7 + 0.3 would be bees covering \cong 2/3 of brood box + \cong 1/3 super, or can be expressed as number of frames or number of boxes, for example 1 + 0.3 = brood box + 3 super frames.

BIAS Amount = Brood in all stages.

No. of frames with brood on both sides. One side only is 0.5.

S, M or L can be 'added' to indicate approximate quantity of brood on the frames.

NATIVE APPEARANCE

* 1-5 (Non-native - Native)

Assess on each visit. Allows for variation in assessments.

This measure is assessed by looking at a sample of worker bees on the face of a comb, for example.

1 - virtually no bees of native appearance

2 - about 25% native app

3 - about 50% native app

4 - about 75% native app

5 - virtually all native app

*Native appearance is a dark abdomen, a thin tomenta or light-coloured stripe, with yellow, ginger or brown hairs around the thorax (as opposed to white or cream).

A non-native bee is indicated by yellow, orange, or brown band/s on the abdomen; a wide tomenta or light stripe on the abdomen (as wide as the dark part), with white or creamy hairs around the thorax.

An Italian (Ligurian) influence would be lighter coloured, orange bands on the abdomen. Carniolan (carnica) influence would give the impression of white or grey hairs. They can be dark bodied but often have a brown and very stripy abdomen, wide stripes, not narrow.

Summary is average of last 3 assessments. This allows for variation in assessments.

THE NATBIP COLONY RECORD CARD - CONT.'

TEMPERAMENT

1-5 (aggressive to docile)

Assess at each visit. This trait can vary considerably over the season, according to conditions.

1 - Unpleasant to work with in every way.

- Difficult to control with smoke
- Defensive as you approach the hive/apiary.
- Followers as you leave

2 - Very excitable

- Aggressive
- Determined to sting
- Needs considerable smoke control

3 - Lot of movement on the comb and may be a few stings without due reason

4 - Not aggressive but lively on the comb. A bit excitable but no direct aggression.

5 - Very gentle and calm on comb. A pleasure to work with.

Tip for assessment: Are bees pleasant or unpleasant to work with. Think 4 or 2. Then adjust up or down, as appropriate, to reach final assessment.

Summary is arrived at by calculating average of the last 5 visits, which levels out variations.

SWARMING PROPENSITY

1-5 (swarmy to non swarmy)

Only assess if an event relating to swarming occurs (queen cells), or does not occur through season. Use last assessment at end of season.

1 - Unproductive and produces swarm cells

2 - Small to medium honey crop and produces swarm cells

3 - Moderate to good honey production but produces swarm cells, or unproductive but no cells.

4 - Goes through season without swarm cells with average crop of honey

5 - Goes through full season with no attempt to swarm. No swarm cells produced. Good honey crop.

Practice usual swarm control methods.

HEALTH AND BROOD PATTERN

1-5 (Poor brood pattern & health to good brood & health)

Assess brood pattern and/or observable diseases or pathogens (brood or adult bees). Identify disease if present, record action if any in notes.

1 - Very poor brood pattern. Slow colony build up. May be identifiable diseases present

2 - Poor brood pattern (pepper-pot brood and/or quantity &/or health)

3 - Average brood pattern

4 - Above average brood

5 -Very good brood pattern and amount + healthy

HONEY YIELD

The quantity of honey should be recorded whenever any is removed from colony. This can be estimated at time of removal or supers can be marked and calculated upon extraction.

To estimate on removal, a BS/National super frame fully capped is about 2.75 lb If 10 frames in a super. Full National super about 28lbs. Round up or down according to how well filled each frame is.

If using different size frames, weigh them to be accurate or work out own estimating system.

AMOUNT FED

In this column, enter any feed given with quantity and date of feed in preferred units.

MITE DROP

Record average daily mite drop at any stage through the season

SUMMARIES (at foot of table)

- Native Appearance - average of last 3 recordings
- Temperament - average of last 5 recordings
- Swarming Propensity - last assessment of season
- Brood pattern/health - average of any recordings
- Honey yield - total for season
- Amount fed - total for season

RHY (relative honey yield)

Allows more meaningful comparison between colonies in different apiaries. RHY = Colony Honey yield divided apiary average honey yield. This is expressed as a decimal, so 1.0 = average, 2.0 is double the average yield, 0.5 is half of average yield.

OVER-WINTERING

Assessment in spring compared to average on a 1-5 scale.

VARROA

treatment - Record treatment given, if any.

ASSESSMENT OF BREEDING POTENTIAL

The beekeeper will have to decide what the priorities are regarding the desirable qualities. A general rule may be to only breed from queens which have exceptional temperament, or some may feel strongly about working within a strain, to increase the chances of breeding true, so, for example, native appearance of the offspring may be high on the list. Or beekeepers may wish to experiment with giving priority to different characteristics.

THE APIARY CARD SUMMARY

The summaries for each colony can be forwarded to an 'Apiary Summary' card which has one row for each colony, so an apiary with 12 colonies would have 12 rows. This card is used to hold summaries of all colonies in the apiary. It makes comparison between the colonies simpler and therefore selection easier.