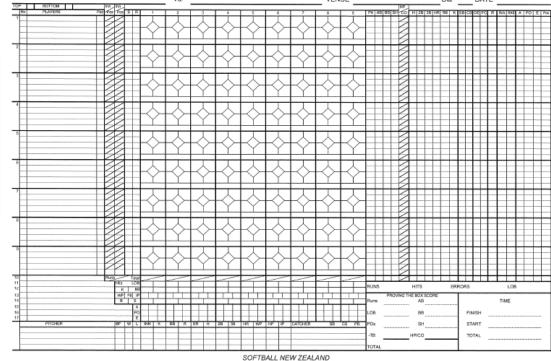
# Introduction to **Softball Statistics**





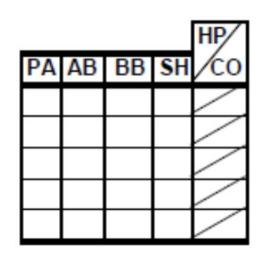


# **Batting** – Understanding the Analysis Columns 1



These stats show what happens to the Batter up to the end of their turn at bat.

- **PA** Number of times a Batter enters the Batters box.
- **AB** Number of times a player steps into the batter's box excluding BB, SH, HP, CO.
- **BB** Number of walks a player gets including Intentional Walks (IBB).
- **SH** Number of times a player either bunts, to advance a runner safely, or hits a fly ball and a runner scores after the catch is taken.
- **HP** Number of times a player is hit by a pitched ball in the batter's box.
- CO Number of times a player is interfered with by the catcher on a pitched ball COE2.



# **Batting** – Understanding the Analysis Columns 2



These stats show what happens to the Batter after they have completed their turn at bat.

- H Number of Hits they have in a game. This includes all hits (1B, 2B, 3B, HR).
- **2B** Number of Two Base Hits they make safely.
- **3B** Number of Three Base Hits they make safely.
- **HR** Number of Home Runs they hit safely.
- **RBI** Number of times a player brings another player home safely after their turn at bat is completed.
- **K** Number of times a player is Stuck out by the Pitcher, this includes all strikeouts even if the batter is Safe e.g. KWP, KPB.

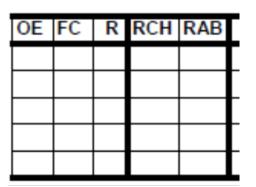
Н	<b>2</b> B	3B	HR	RBI	K

# **Batting** – Understanding the Analysis Columns 3



These stats show how the batter reaches base. For basic stats, only focus on the R (runs). The others are more advanced and will be covered in an advanced session.

- **OE** When a Player reaches 1<sup>st</sup> base safely with the aid of an Error. This also includes a Sacrifice Hit or Bunt with an Error, a Fielders Choice with an Error on a preceding runner, and a Sacrifice Hit or Bunt with a Fielders Choice.
- This is only used when a batter reaches 1<sup>st</sup> base safely as a result of a play being made on a preceding runner where there is **NO OUT or ERROR**.
- R Every time a **runner** crosses home plate safely to score a run. Note: If a batter has been replaced by a DR (Designated Runner), the run goes against the DR.
- **RCH** Every time a batter reaches 1<sup>st</sup> base safely. This excludes a Fielders Choice when there is an **OUT** on a preceding runner.
- **RAB** Every time a batter is in the batter's box and completes their turn at bat, excluding a Sacrifice Hit or Bunt that results in them being **OUT**.



### **Scoresheet** – Basic Batting Stats



These columns are how they appear on an official scoresheet.

				HP																	
PA	AB	BB	SH	co	Н	2B	3B	HR	RBI	K	SB	CS	OE	FC	R	Rch	RAB	Α	РО	Ε	Pos

To achieve basic stats, you only need to concentrate on the columns below.

Depending on where you are with your scoring, the SH (Sacrifice Hit) column may not be used either. This will result in a batting average slightly lower than it would be if a batter has a sacrifice recorded.

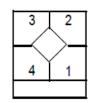
				HP																	
PA	AB	BB	SH	8	Η	2B	3B	HR	RBI	K	SB	CS	OE	FC	R	Rch	RAB	Α	РО	Е	Pos

### **Basic Batting Stats** – First Step



### Step 1

You need to transform the information recorded for each batter, in the main body of the scoresheet, to number form in the appropriate column in the Analysis.



For columns **PA**, **AB**, **BB**, **SH**, **HP**, **CO**, **H**, **2B**, **3B**, **HR** and **K**, we only use the information in square 1 of each box. *RBI's are covered later*.

]	1	2	3	B.Allen	5	6	7	8	9	PA	AB	BB	SH	<b>6</b>	н	28	38	HR	RBI	K	R
1	$\rightarrow$	3 3	$\mathcal{N}$	WP WP (2)	$\rightarrow$	<u>→</u>	$\forall$	$\forall$	$\forall$	4	3	1	-	eq	1	1				2	2
1	Y <sub>K</sub>	E21 9	$\mathscr{S}$	FC 24(5) BB	$\overline{}$	Y	Y	Y	$\overline{}$					7	F						Н
1	C+C2+222	x2				C••x								7							Н

### **Batter 1**

**PA = 4**, AB= 3 as a BB is not considered an At Bat, enter this in the BB column

Hits = 1, this includes all hits. As the hit is a double, we put 1 in the 2B column if you are recording them

K = 2, this includes all strikeouts, KC, K, KA, K23(out), KPB, KWP and K with E.

Run = 2

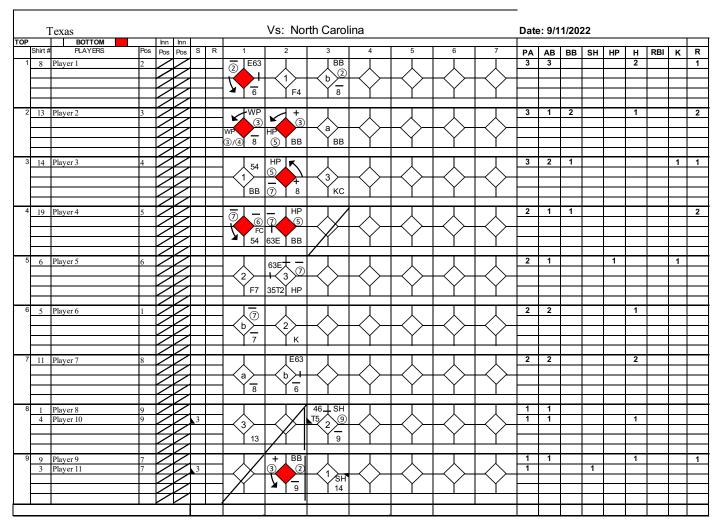
													HP/				
1	2	3	4	5	6	7	8	9	PA	AB	ВВ	SH	<b>∕</b> co	Н	RBI	K	R
		/							4	3	1			1		2	2
		_/		$\bot \land \setminus$													
	+	\ <u>\</u>			\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\							************					
K	9		→ BB		K								<u></u>				
c=c2=222	x2	/	•••		C••x												

Scoring the same batter with the basics will achieve the same result.

### **Batting Analysis** – Basic Scoresheet Example



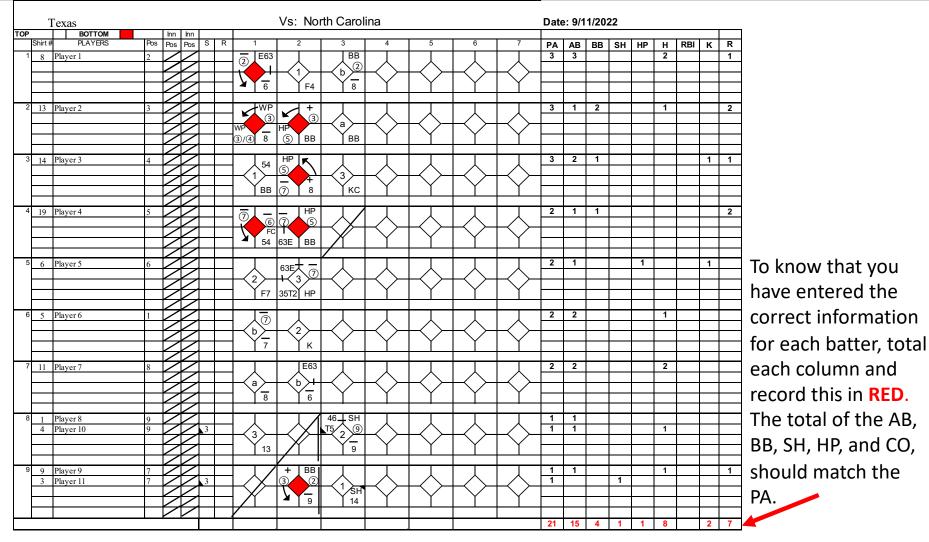
This is a Basic scoresheet with the analysis completed for each batter.



**Note:** There were substitutions made in batter 8 and 9 slots. It is important to draw the vertical line showing where the new player came in. This enables the correct analysis for each player.

### **Batting Analysis** – Basic Scoresheet Totalised





If you are using a basic scoresheet, like this one, to check your Hits and K (strikeouts) the simplest way is to count them in the body of your scoresheet.

### Calculating Batting Average (BA) - example



$$BA = \frac{H \text{ (total hits)}}{AB \text{ (total at bats)}}$$

This shows how to calculate each player's BA for this game.

To calculate a player's season BA we accumulate each game they play in.

You can use a spreadsheet to do this.

Alternatively, Softball NZ use StatTrak to accumulate stats:

https://www.allprosoftware.com/sb/upgrades/

PLAYERS	PA	AB	BB	SH	HP	Н	RBI	K	R	BA	Calculted Hits divided by AB
Player 1	3	3				2			1	.667	2 div by 3= .666666 We always round up
Player 2	3	1	2			1			2	1 000	1 div by 1 = 1.000
i layel 2		<del>'</del>	-			•				1.000	1 div by 1 = 1.000
Player 3	3	2	1					1	1	.000	No Hits so no Batting Average
Player 4	2	1	1						2	.000	No Hits so no Batting Average
I my Cr 1											
Player 5	2	1			1			1		1.000	1 div by 1 = 1.000
Player 6	2	2				1				.500	1 div by 2= .500
<u>,</u>											
DI 7	2	2				2				4 000	0.45.40 = 4.000
Player 7										1.000	2 div by 2 = 1.000
	-										
Player 8	1	1								.000	No Hits so no Batting Average
Player 10	1	1				1				1.000	1 div by 1 = 1.000
							1		-	1	
Player 9	1	1				1			1	1 000	1 div by 1 = 1.000
Player 11	+ †	<u> </u>		1		-			-	1.000	As this player doesn't have an At bat no
1 111 51 11	-			<u> </u>						1	BA is shown

### Calculating Batting Average (BA) - Spreadsheet



This is an example of a spreadsheet that calculates the BA for each player (H/AB).

CI	lipboard	짇	I	Font			집			Alignme	ent	
J6		▼	× .	f <sub>x</sub>	=5	SUM(H	5/C6)	<b>—</b>	#DIV,	/0! will	ormula us show unt ne numbe	il
4		Α	В	С	D	Е	F	G	Н	1	J	K
1	Player		PA	AB	ВВ	SH	HP	CO	Н	K	BA	
2	Player 1		5	4	1	0	0	0	2	0	.500	
3	Player2		6	4	1	1	0	0	1		.250	
4	Player 3		6	3	0	2	1	0	2		.667	
5	Player 4		5	5	0	0	0	0	3		.600	
6	Player 5									A	#DIV/0!	<b>→</b>
7												

# **Spreadsheet BA** – formatting BA Cells



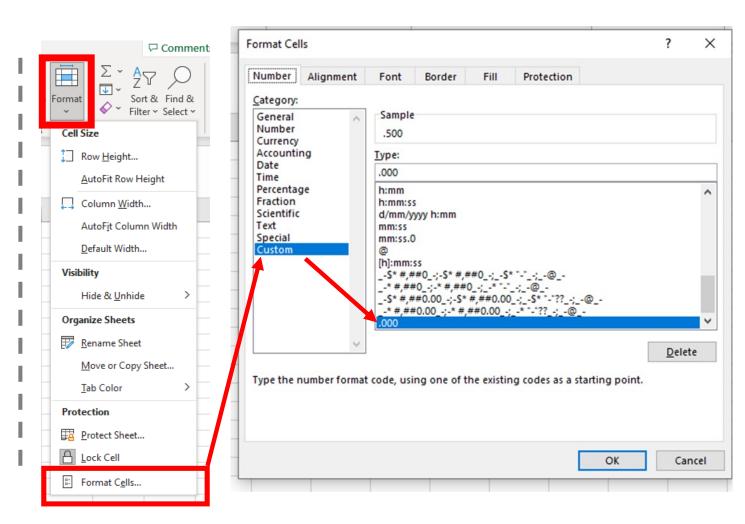
BA

0.500

Batting average should always have 3 decimal places (0.000).

Format the spreadsheet BA cells using 'Format – Format Cells - Custom - .000' to achieve this.\*

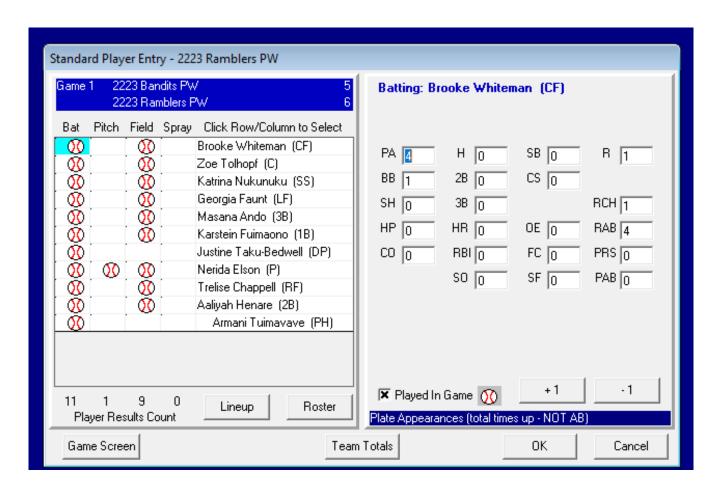
\*some programmes and versions may look different.



### StatTrak - Input Screen



This is the StatTrak input screen. You have the ability to design your own screen in StatTrak and can have as many inputs as you want. You can also create your own categories. There are five options for each category.



### Pitching Analysis – Understanding the Analysis Columns 1



BF	W	L	INN	K	BB	R	ER

**BF** Number of batters who complete their turn at bat, while they are pitching.

**W/L** Enter **1** in the **W** column to show a win or enter **1** in the **L** column to show a loss.

**INN** Number of innings they pitched. 3 OUTS is a full innings, 2 outs is recorded as .2 and 1 Out is recorded as .1.

**K** Number of strike outs the pitcher takes it includes strike outs where there is no out e.g. KWP, KPB, K E23.

**BB** Number of Base on Balls the pitcher gives up including Intentional Walks (IBB).

**R** Number of runs conceded in a game.

Number of runs conceded that are earned or the responsibility of the pitcher.

This is covered in the 'Understanding Earned Runs' module.

### Pitching Analysis – Understanding the Analysis Columns 2



Н	2B	3B	HR	WP	HP	IP

- H Total number of Hits conceded by the pitcher. It includes 2B, 3B, and HR totals.
- **2B** The total number of 2-Base hits conceded by the pitcher.
- **3B** The total number of 3-Base hits conceded by the pitcher.
- **HR** The total number of Home Runs conceded by the pitcher.
- **WP** The total number of Wild Pitches committed by the pitcher. Remember, if more than one runner advances on a WP on the same play, only count one WP.
- **HP** The total number of batters hit by a pitch and awarded 1<sup>st</sup> base.
- Number of illegal pitches called on the pitcher, even if there is no advance. These are recorded in the balls and strikes box with !

All this information is obtained from the **opposition's side** of the scoresheet. So, you will need to stat the opposition's batting to do your pitching stats.

# Pitching Full Stats vs Basic Stats



The previous two slides show the official scoresheet used for full stats (below).

BF	W	L	INN	K	BB	R	ER	Н	2B	3B	HR	WP	HP	IP

To achieve basic stats, focus on the white columns below.

BF	W	L	INN	K	BB	R	ER.	Н	2B	3B	HR	WP	HP	IP

One of the hardest things in the pitching stats is determining the Earned Runs. This is unable to be achieved if you are using the basic stats, but you can still provide a record of BF of all the other stats.

### **Pitching Stats** – Transferring with 1 Pitcher



Use the column totals from opposition batting side of the scoresheet

PA	AB	BB	SH	HP	Н	RBI	K	R
11	11				3		2	1

This is the easiest transfer. Copy the above totals to the pitching analysis on your team's side of the score sheet.

Pitching	BF	W	L	Inn	K	BB	R	ER	Н	HP	
Player 6	11	1	-	3	2	-	1		3	-	

### **Pitching Stats** – Transferring Multiple Pitchers

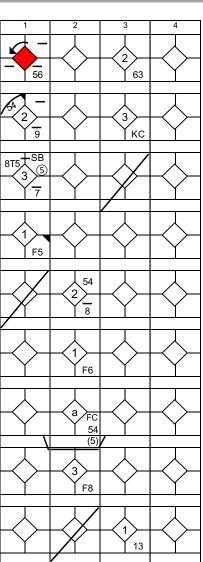


With multiple pitchers, it is important to indicate when the pitcher changed. This is done on your opposition's batting side of the scoresheet using the little boat and the players shirt number in brackets. You then split the stats between the pitchers, taking notice of the innings pitched.

### **Example**

- The first pitcher was changed in the 2<sup>nd</sup> inning with 2 outs.
- The replacement pitcher pitched the rest of the game.
- To determine the innings pitched, look at the number of outs when the replacement is made.
- The first pitcher was replaced with 2 outs in the second innings. So, they pitched 1.2 innings.
- The relief pitcher then pitched 1.1 innings.

Pitching	BF	W	L	Inn	K	BB	R	ER	Н	HP	
Player 6	7	1	-	1.2	1	-	1		3	-	
Player 3	4	-	-	1.1	1	-	-		-	-	
	11	1	-	3	2	•	1		3	-	



# You have completed the Introduction to Softball Statistics module

