

# Optimize your rotations to win more matches

By putting your players in the roles that suit them best, you will give your team its best opportunity to succeed

By Kyle Mashima

**A**s a high school and club coach, I am always looking for fast ways to improve my team's performance. I have attended many USAV CAP certification courses and seminars as well as two American Volleyball Coaches Association Annual Conventions, and these sessions have given me a wealth of information that has improved my coaching. One in particular that caught my attention was Bill Neville's seminar on being creative with your formations. I think of this as rotation or lineup 'optimization.'

Spending time optimizing the lineup is one of the few ways that coaches can improve their team's performance without improving the players' ball-handling skills. I know I am always wishing that my players could pass better or spike harder. But the reality is that this takes time and effort. It is an important investment, but the benefits come slowly – sometimes not until the following season.

Rotation optimization is almost the opposite. In general, the learning time is relatively quick and the effort is mostly the coaches'. The results are immediate and can produce 2-6 more points per set. Since many games are lost by scores such as 25-21, rotation optimization can dramatically change your win-loss record.

## The definition

What is "optimization?" Selecting the right offensive organizational system – whether it's a 4-2, 5-1 or 6-2 – is important, but optimization goes beyond this. It's about having the right players on the court in the right roles, locations and formations – both defensively and offensively and at the right time.

## The challenge

If optimization provides such immediate rewards, why is it not focused on more often? One reason is that there are a number of barriers to the optimization process. The first barrier is that moving out of standard formations is uncomfortable for both players and coaches. As coaches, we get used to certain patterns of play and tend to stick with things that have worked for us. Another issue is that non-standard options aren't always clear, so coaches often don't have the creative spark

to move in a new direction. The final barrier, which affects all of us, is that the process is tedious and time consuming. Fortunately, a solution to this final problem is now available, and I will cover it shortly.

## The goals

The key considerations for optimizing your lineup are often in conflict, which makes the optimization process difficult. Goals include:

- Expose the best passers on the court in all receive rotations.
- Use the best servers in early rotations.
- Create the best hitter-setter combos in early rotations.
- Position the best defenders on the court at all times.
- Minimize the impact of weak players.

## The strategies

In high school or junior club play, coaches typically only go through about nine rotations in each set of the match, so the team's first three rotations will get more time on the court than the last three.

Let's start by building the foundations for the team.

To control the play, you first need to be able to receive and control the serve, and then you need to

be able to set the ball and terminate the rally with a kill.

Once a team has the ball, it's important to serve well. While blocking is normally the next action that takes place, it's typically the least important skill since very few points are scored with blocking at most levels of the

game. Digging is very important because a good dig turns your defense into your offense.

I would rank the importance of volleyball skills in the following order:

- Serve receive and serve
- Setting
- Hitting and digging
- Blocking

You may or may not agree with this list, but it is important to create your own prioritization. Without a clear prioritization, it is difficult to make tradeoffs. Some of these skills are mutually exclusive, so you do not need to trade. An example of that would be setting for hitting.

## The test run (Figure 1)

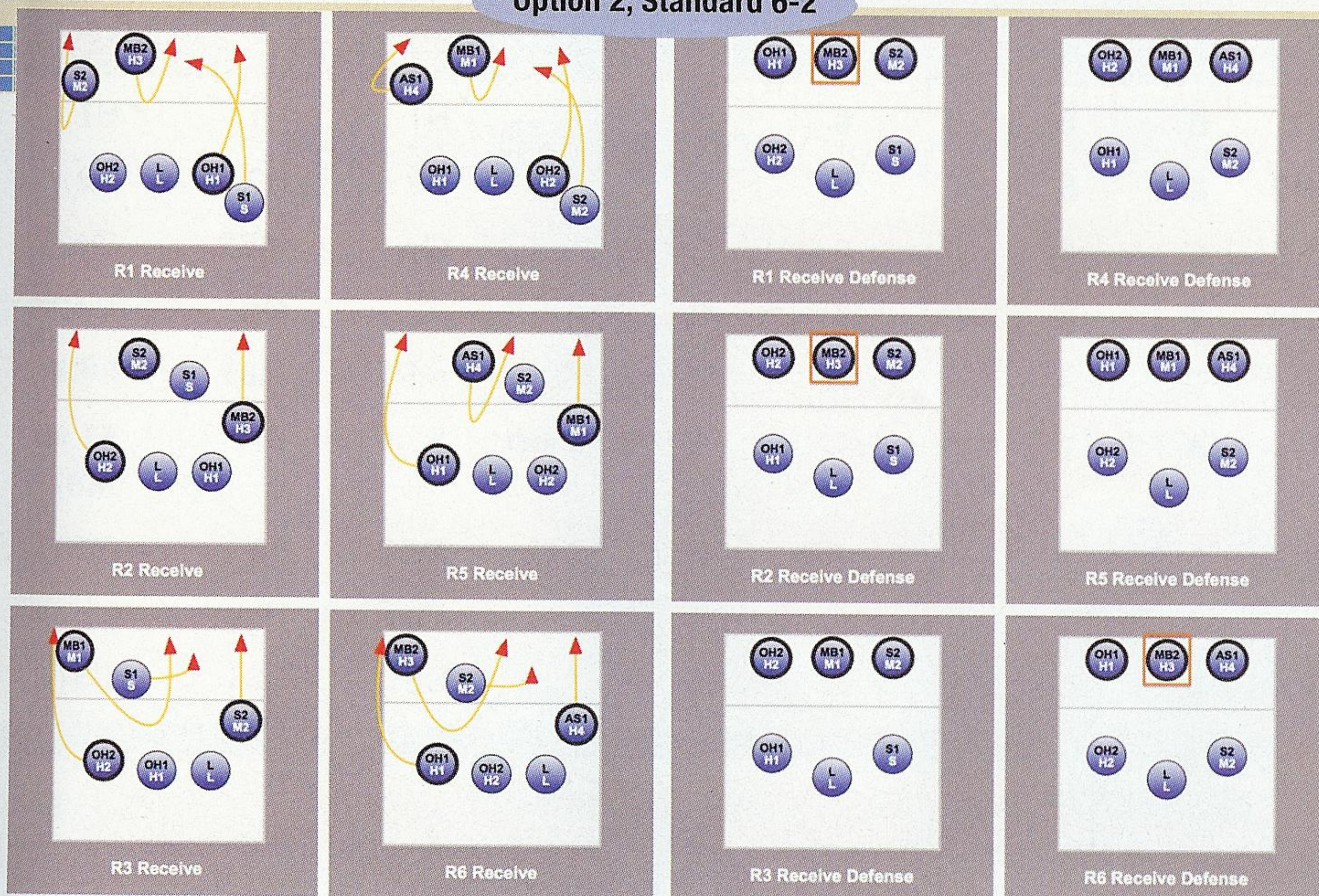
Let's look at one case study as a way to understand the process of optimization. To speed up the discussion, I have simplified the example by eliminating serving as an optimization parameter, but it's important that you keep this in mind.

Player	Pass	Hit	Set	Block	Dig	Other
OH1	B	B	C	B-	B+	
OH2	B-	B	C	B-	B	
OH3	C	B-	C	B+	C	
OH4	C	B-	C	B+	C	
MB1	C	A	C	A	C	
S1	A-	C	A	D	A	Short
S2	B	A	A	A	B+	Tall
DS1	A	C	B	C	A	
DS2	A-	C	C	C	A	

To be systematic about your choices, make a table like the one above and grade your players. I'm using a simple A, B, C, D system, but you could choose to use numbers. You are grading 'on a curve,' so your best setter, for example, gets an 'A' even though he or she may not be the best setter in your



## Option 2, Standard 6-2



2.

who is slightly awkward, but is a significantly better passer than the athletic player.

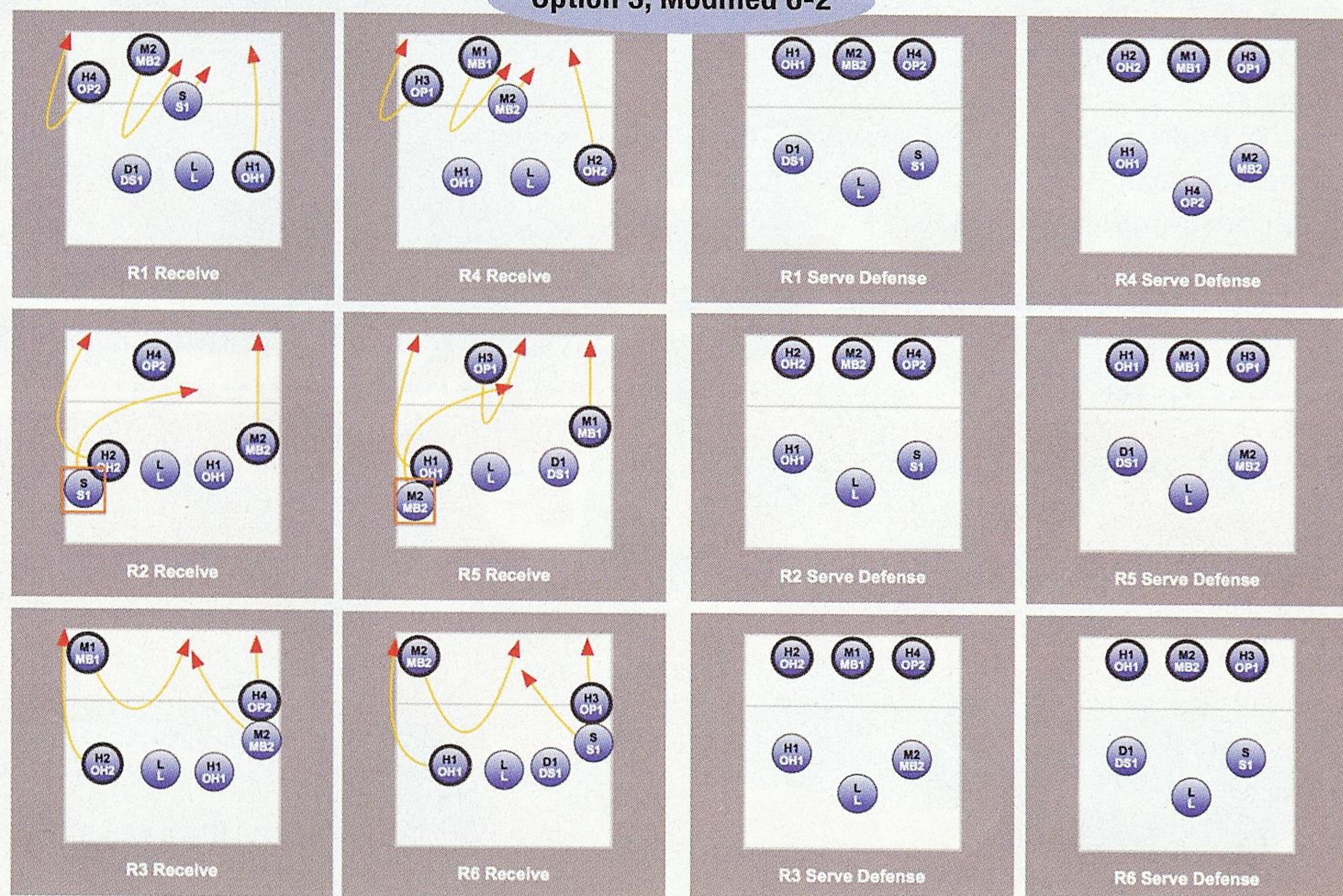
Now let's try to simply fit our players into a type of offensive organizational system. I would normally start with 5-1, but I know that my setter is too short to block in the front row.

**Figure 2**

Let's try a 6-2 using the tall setter and substituting the short setter in the front row with a taller player. All of the formations you see on this page were quickly generated using the software at [www.Rotate123.com](http://www.Rotate123.com). Just enter your roster, pick your formation and the rest is generated instantly. Then you can make optimization modifications as you'll see in this example. USA Volleyball has

3.

## Option 3, Modified 6-2



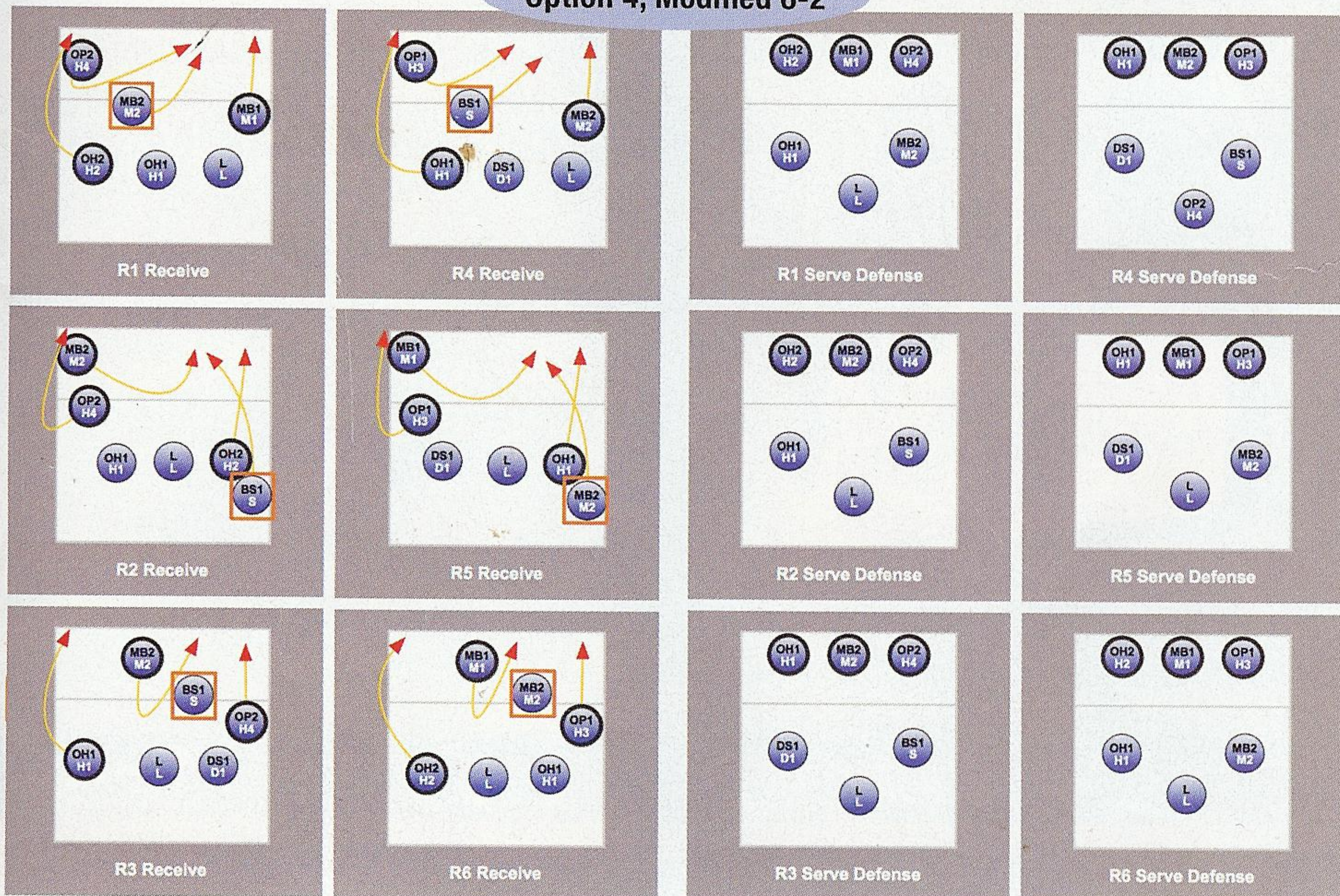
league. This example is a real chart using one of my teams.

As a reminder, do not forget to include a serve rating in your version. Again, I have left it out of this example to expedite the process. I have also placed the players' roles under the Player column. You might consider having a few options per player to avoid pre-judging what each player should do before you carefully review their skill sets.

The grades that you entered will initially need to be qualitative. But as the season progresses, it is important to stat your players so you are not deceived by what you thought you saw. I think passing stats are the most important ones to take, and you can do this during practice. You will need about 50 data points before a consistent pattern emerges. Trust the numbers. To paraphrase *Moneyball*, "the eyes lie," which means that you can be fooled by athletic aesthetics. It has happened to me a few times when I've had a player

4.

## Option 4, Modified 6-2



entered a licensee agreement with Rotate 123 as one of the association's licensed educational tools. In this setup, the passing is still good, but the team has lost its tall middle blocker, so the coach needs to be a bit more creative.

**Figure 3**

Let's try something very non-standard and make the middle blockers the setters. Since the tall setter can do both, we can swap the short setter with the tall middle blocker in the front row. In addition, the team still needs the libero. She or he will sub for the opposites (OH3, OH4) who are not good passers.

The passing and blocking are good. However, the setters must release twice from the back left position creating a long distance from the target position. So it needs to be fixed.

**Figure 4**

Switching the 6-2 from 'Setter Follows Middle Blocker' to 'Setter Leads Middle Blocker'



## CAP II CLIPBOARD

resolves this problem.

### Figure 5

This example is fairly complex and would have taken hours to come up with manually. Since the software makes it possible to try various options very quickly, it is now possible to experiment and find a formation that may make a big difference for your team.

Here are key things to remember:

- New formations need to be learned and tested in practice so you can identify any issues.

- Formal scrimmages should be played so you can position receivers and walk through substitutions.

- Several preseason matches or tournaments should be scheduled so you can test a variety of formations.

- The team should be trained to adapt to new formations quickly because injuries and player performance issues may require lineup changes.

- Print or email the formations to your team so players can study where they need to be. You will be surprised how fast they learn them with practice.

Good luck with your upcoming season. 🏐

Player	Pass	Hit	Set	Block	Dig	Other	Option 1: 5-1	Option 2: 6-2	Option 3: 6-2 mod
OH1	B	B	C	B-	B+		H1	H1	H1
OH2	B-	B	C	B-	B		H2	H2	H2
OH3	C	B-	C	B+	C		Op	MB2	Op1
OH4	C	B-	C	B+	C			Op	Op2
MB1	C	A	C	A	C		MB1	MB1	MB1
S1	A-	C	A	C	A	Short	S	S1	S1 for MB1
S2	B	A	A	A	B+	Tall	MB2	S2	MB2/S2
DS1	A	C	B	C	A		Libero	Libero	Libero
DS2	A-	C	C	C	A		DS1	DS1	DS1

5.

#### 5-1 Standard

- ☐ Passing OK
- ☐ Hitting OK
- ☐ 3 rotations with no right side blocker

#### 6-2 Standard

- ☐ Passing OK
- ☐ 3 rotations with weak middle blocker

#### 6-2 Modified

- ☐ Passing OK
- ☐ 6 rotations with good hitting
- ☐ 6 rotations with good blocking

# SPORTWIDE

a division of first to the finish, Inc®



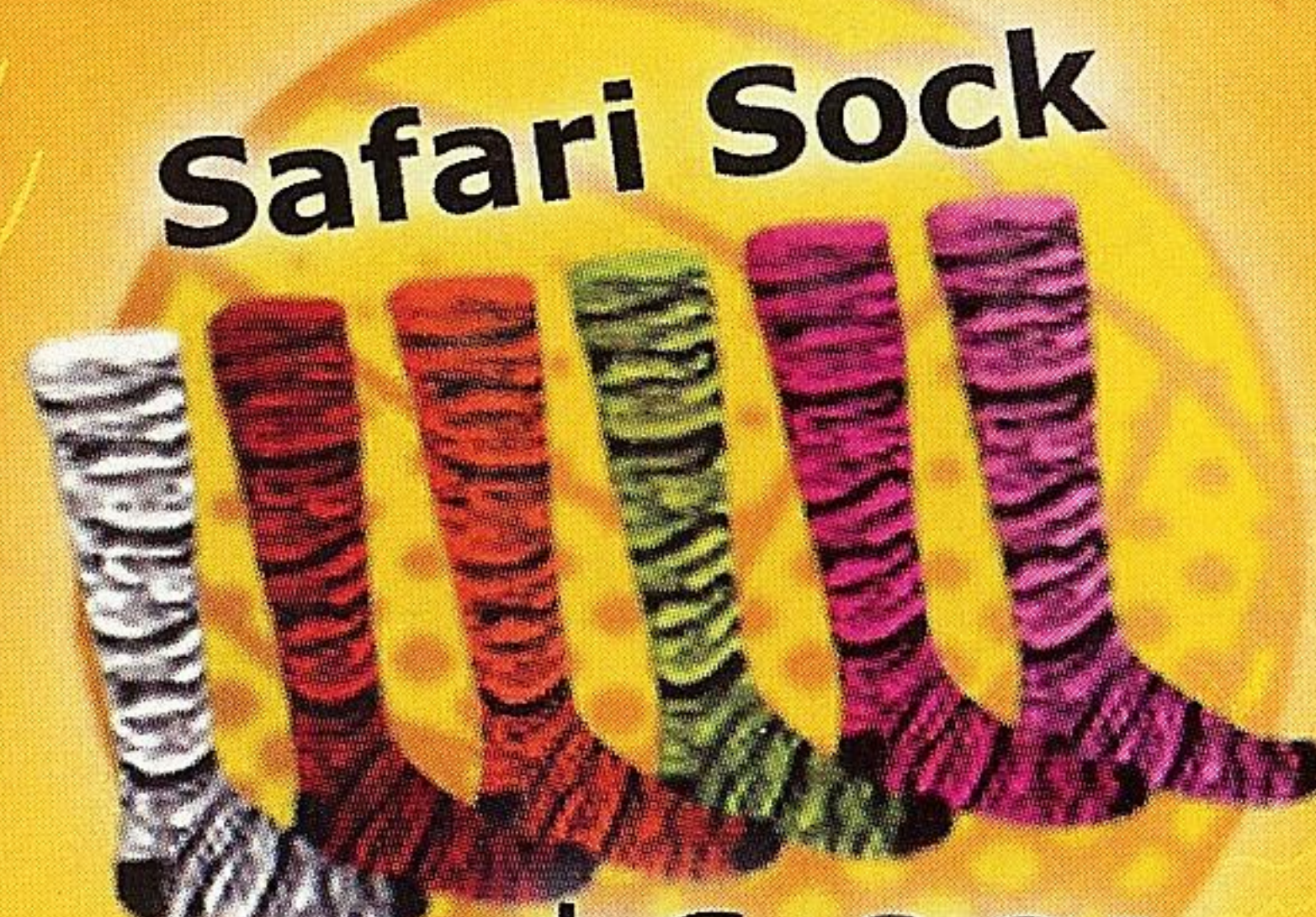
**\$89.99!**

**Hammock Ball Cart**

**The Complete Source for all your Volleyball Needs!**



**Baden Lexum Series \$33.99!**



**Safari Sock**

**\$6.99!**



**sportwide.com**

**1.800.747.9013**