When is the Sinker Most Effective on the ADI and VMI Scale?

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Since we can divide MLB data into performance categories that show how much ball movement the pitcher had purely from the makeup of the air, we can see the pitcher's performance against the ADI. We can also see the hitter's performance when the ball is moving more and when the hitter is not used to the movement vs when he is comfortable in the climate. It gets very intriguing when we include different types of pitches within that same grid. You can do a similar study on the pitcher and hitter stats on our website, but you may glean some good information from our study on the "Pitch-Mix."

Sinker - Used (7%) League Wide

Average Hit/Strike Rate For 2016 =11.02%

"Reverse" pitcher throws the Sinker or Two-Seamer far more often than the traditional four-seamer

The Sinker is another pitch, which if used in more than 20% of the total pitches thrown by the starting pitcher, identifies him as a Reverse Pitcher. If you note that the pitcher your hitting team or player is matched up against in today's or tomorrow's game is prone to throwing a high number of Sinkers, then he will be more successful against a High Plus VMI team than a High Minus VMI team with that pitch. A "Reverse" pitcher is one who throws a Sinker above 90 mph as one of his primary two pitches. So, a High Plus team will be more successful against a Tight Pitcher and a High Minus team will be more successful against a Reverse Pitcher.

A sinking pitch can be thrown several ways. The value is in the speed. Gravity alone will cause a pitch to drop, but disguising it, plus keeping it in the zone or just below the zone in the 90 mph ranges, is the key. It appears that some pitchers rotate the ball with a similar spin to a bullet that is, with the nose (or center of the rotation) pointed toward the catcher. With no backward spin, the ball will not lift, so the speed and the gravity can be the primary forces at play.

In heavier air, the Sinker will sink more because of the seams that are revolving around the perimeter "nose" of the ball and thus acting as a sort of parachute to slow the ball. As you can probably imagine, in lighter air the ball will travel further before sinking and so becomes a late breaking pitch. At high speeds in either environment, it is devastating to a hitter who is sitting on a four-seam fastball, as most do.

Cutter (or Cut Fastball - Used 5%) League Wide

Average Hit/Strike Rate For 2016 = 9.59%

A "Loose Pitcher" is one who throws the Curveball, Cutter, Splitter and maybe a Slider

The Cut Fastball can be thrown either above or below the 90 mph range with good success. The key here is probably the element of surprise. If it is thrown too often, it is a

pitch that a Major League hitter can put his bat on. We have labeled as "Loose" a pitcher who throws many Cutters, plus many Sinkers, plus many Curveballs and/or an additional pitch. In my earlier days, this type of pitcher who rarely throws the typical four-seamer was called a "Junker." This type of pitcher is a "Loose Pitcher" because he presents many ways in which to get a hitter out. However, a Loose Pitcher also presents many ways by which to lose a game, especially to a team who sports a High Minus VMI. When using the VMI, look for a team who is High Minus against a pitcher who would probably be considered Loose. That is a combination that favors the hitters. The Cutter by itself is a great pitch. It can be thrown as a one-seamer--that is, with the ball turned in the hand to create an up and down seam that aligns with the opposite seam to present the visual--when spinning through the air, that one seam wraps around the entire ball. This visual of one seam leaning the direction of the arm slot creates a sort of Frisbee© effect. The wrap-around seam then cuts through the air with the air pushing the seam and ball sideward and downward. In heavy air it will break sooner, in its path toward the strike zone and in lighter weight air it will break later.

This pitch is used only about 5% of the time. Most pitchers try to disguise the one-seam by rotating the ball in the grip slightly to keep the one seam from becoming easily recognizable. This tactic can be a double-edged sword. It can disguise the pitch, but it loses some movement. It also makes it a pitch that is very sensitive in terms of being ineffective vs extremely effective. As such, it must be thrown almost perfectly from the arm-slot to the finger release.

Effectiveness data on this pitch is pretty consistent regardless of the ADI in which it is being thrown.

Visual Memory by Clifton Neeley, creator of the Visual Memory Index© and author of the web-site <u>www.baseballvmi.com</u>. Clifton pitched and played baseball and fast-pitch softball in the mountainous southwest Colorado area from 4,000 feet in Grand Junction to 6,000 feet in Durango to 9,000 feet in Telluride prior to his college experience in baseball.