

Over the last few years I have collected riding tips from a number of sources. I have compiled this comprehensive and growing list. If anybody has anything to add please mail me and I will add it. This list may contain copyrighted material and I will give credit to the source where such copyright exists.

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How to ride mud

Sit Forward - Far forward by MXA

In the early days of motocross, riders kept their body weight as far back as humanly possible. Viewing old race footage reveals that some of the greatest stars of the sport sat on the rear fender and guided the bike around by the rear wheel. It wasn't until the '80s that riding styles began to change. Why did riders stay so far back for so long? The ergonomics of the bike demanded it. With limited suspension travel, riders from the early '70s sought the safety of the driven rear wheel. As suspension travel began to increase in the late '70s, motocross racers began to move forward. By the '80s, the popularity of the "attack position" slowly but surely moved motocrossers over the front of the bike.

BODY POSITION

Although body position is relative to the angle of the bike in relationship to the horizon, a modern rider's "centered" position is no longer in the center—but closer to the front wheel. Why the change?

(1) Front suspension improvements. Modern front fork design, stiffer spring rates and effective anti-bottoming devices allow a modern rider a greater margin of safety than the oil-damped, six-inch travel forks of the '70s. In the formative years of motocross, only Maico riders could trust their forks not to bottom out and pitch them over the bars.

(2) Steeper geometry has forced the rider's weight to the front of the bike in order to magnify bite. Bikes of 25 years ago had slack head angles, rearward weight biases and low centers of gravity. Bikes from two decades ago had 31-degree head angles. The latest bikes have 27-degree or steeper angles.

Additionally, new bikes are taller, weighted more to the fore and tippy. Staying forward helps counterbalance the radical geometry.

(3) Track designs have drifted away from fast sweeping corners, high-speed straights and natural terrain in favor of tighter supercross-style turns, often with deep ruts or berms (made deeper than in the past by long travel suspension) and artificial jumps. Since staying forward enhances cornering, modern riders have been drawn to the front by the complexity of modern track designs.

A BODY IN MOTION

Body position is determined by terrain, vehicle reaction and rider input. When going uphill, a rider will always move forward because of the rearward weight shift. Downhill riding demands that the rider move rearward to compensate for fork compression, weight shift and gravity.

Apart from terrain changes, the attitude of the bike also affects rider positioning. Acceleration will blow the rider backwards, braking will shove him forward, jumps will lift him out of the saddle and landing will compress him into the seat. A savvy rider understands these forces and works with them.

THE RULES OF THE ROAD

What are the rules of the road? They are not complicated, but require effort, practice and concentration. Here they are.

Rule One: Where should your body be? As a rule of thumb, you should sit as far forward as you can. Jam yourself up on the petrol tank. You can never be too far forward (largely because it is physically impossible to get tucked in tight enough and still ride the bike). Situational awareness will allow you to adjust your body position so that you aren't locked forward on the bike, but it's easier to move back than it is to move forward—so stay forward.

Rule two: What should you do with your arms? Raise your elbows up-and-out to make room for your chest. Keep your

elbows as high as you can. How high? Higher than you feel comfortable with. In corners, make a conscious effort to keep your outside elbow as high as possible.

Rule three: Where should you put your legs? Most beginning riders like to sit on a bike the same way they sit in a comfortable chair. This is wrong! When traveling at speed you are not watching TV, so slide your body forward until your knees are bent at a 45-degree angle (when sitting at the dinner table your legs should be at 90-degrees).

Rule four: What about your head? Lead with your face. The first part of your body to break through the air should be your nose. Take the time to look down when riding—you should see the top of your triple clamps (on occasion you should be able to read your own front number plate).

When blasting through berms, make every effort to keep your face forward and your back arched. Most riders tend to lean back in berms. This is wrong. Leaning back takes weight off the front wheel and allows the bike to climb up and out of the berm.

Rule five: What if I'm not in good enough shape to stay forward? Most riders aren't strong enough to pull themselves forward, push themselves back, stand when exiting turns or sit at the last second, but you don't have to be strong if you are smart. If you follow "Rule Number One" and always sit as far forward as possible, you can use the centrifugal, centripetal and inertial forces of the motorcycle to move you around. For example, stay standing until you enter the corner and then utilize the deceleration of braking to push your body forward and down. On the exit of the turn, wait until an acceleration bump lifts your body out of the saddle and ride that energy into a standing position. The forces of acceleration and braking (not to mention the adrenaline of fear) will aid you in responding in the correct direction.

Rule six: What if I sit forward already? Few riders sit as far forward as they should, but if you are one of the few—be proud. But, also try to put everything together. (1) Sit as far

forward as possible in the corners. (2) Stand whenever you aren't turning. (3) Keep your elbows up (especially the outside elbow in a turn). (4) Sit down at the very last second when entering a turn and stand as soon as you have the bike lined up coming out of a turn. (5) Keep your legs bent. Your legs are the pistons that drive your body. Use them to stand, slide, balance and grip the tank.

SECRETS OF BRAKING By MXA back to top

Repeat this. You can only go as fast as you can stop. Motocross tracks have lots of low-speed corners, where the ability to slow the bike down quickly translates into getting it back up to speed when exiting the turn. Anyone can go fast on the straights. Straights are one place where there is no difference between Ricky Carmichael and you. However, there is a big difference at the end of the straight. Ricky can go faster longer and still make the turn—you have to coast. But, if you learn the secrets of braking, you can go in deeper and come out faster.

SECRETS OF BRAKING

These are the ten keys to effective braking.

Tip One: Don't brake too soon. Going in deep is the only way that a racer should attack a corner. Coasting into corners is time wasted (especially when magnified by ten or more corners per lap).

Tip Two: Use brake markers. Road race courses have countdown signs leading into a corner. A pavement pilot can choose to apply the brakes at signs 3, 2 or 1. Motocrossers don't have braking markers, but that doesn't mean that you can't pick out a hay bale, flagman, water sprinkler or rock and

use it as a marker. Once you pick your braking points, use the same spot lap after lap. Most riders begin braking earlier and earlier as a moto progresses.

Tip Three: If you are going to use your brakes, use them hard. Don't pussyfoot around. When you decide to use them—use them.

Tip Four: Brake while the bike is upright. Do the majority of your braking on the approach to the corner (when the bike is still going in a straight line). An upright bike puts the most rubber on the ground and can withstand brake lock-up, skidding and rough ground better than a leaned-over one.

Tip Five: Depend on your front brake. The front brake does 70 percent of the braking. The rear brake is largely for directional control, to keep the engine running and for brake slides. If you want to stop in a hurry, you will have to use the front brake.

Tip Six: Sand, mud and hills require less braking. Going up a steep hill doesn't require as much braking to slow or stop the bike because gravity is working against the bike's momentum. By the same token, sand and mud create additional drag that aid in braking. Read the terrain and adjust your braking accordingly.

Tip Seven: Off-camber hills and corners require a light touch on the brakes. Too much rear brake on an off-camber typically results in skid marks in your pants.

Tip Eight: Adjust your levers to suit your braking style. The front brake should be set up so that there is only a small amount of free-play in the lever. You want the front brake to be activated by the bending action of the first knuckle of your fingers and locked up by the time the second knuckle bends.

Tip Nine: Be prepared to pull the clutch in. If you are trying to outbrake the guy in front of you going into the next turn, you may want to pull the clutch in (especially on a 125 or four-stroke). Pulling the clutch in allows you to use the front and

rear brakes to the max without killing the engine.

Tip Ten: Master the brake slide. Brake sliding reached its zenith in the late '70s as an effective braking technique. When you lock up the rear brake, the rear of the bike can be forced to slide around the corner—completing two tasks at the same time. While the rear wheel is sliding, the front brake is used to pin the front wheel to the apex. In essence, you lock the rear wheel up and slide the bike around the inside apex of the turn and then pull the trigger and go once you're lined up with the next straight. This is especially effective in hairpins, uphill corners and on hard-packed dirt.

BE FASTER back to top

Have you stagnated? When was the last time your riding improved? What would you give to be faster by next weekend? Here are ten quick and easy ways to be faster before your next race.

TIP ONE: THE JOHN FORCE APPROACH

Too many riders patty-cake around a track. They think they are going fast, but they aren't. How can you tell if you are a mediocre rider? Take this simple test: When another rider tries to pass you, do you dig down deep, twist your right wrist and give it everything you've got? If you do, then you have been dogging it for most of the moto. You shouldn't have any speed left in your machine, wrist or lungs to put up a fight. If you do, you aren't trying hard enough.

Experts say that 75 percent of riders grip the throttle in such a way that they cannot twist the throttle to the locks without dropping their elbows. To fix this, hold the throttle the same way you would a door knob. And be sure that every time you turn the throttle the slide hits the stops.

TIP TWO: THINK BIG THOUGHTS

Don't divide your local track into turns and jumps. A track is not different obstacles, but one continuous circuit. Try to string two or three straights and turns into one well-thought-out maneuver (and eventually the complete track into one integrated racing line).

Plan ahead! Look ahead. Don't fixate on a whoop, jump or corner. Keep your head up and ignore trouble that you have already hit. Start thinking like a racing car driver instead of a stunt man.

TIP THREE: TALK TO YOURSELF

You'd be surprised to find out how many International riders talk to themselves during a race. It is an effective racing tool. Try it. Talk out loud! Tell yourself to turn the throttle wide open, yell for more brakes, demand a tighter inside line and don't worry about sounding crazy—no one can hear you.

Thinking good thoughts is nice, but transferring those subconscious ideas to the conscious level (known as verbalisation) is the best form of positive reinforcement around.

TIP FOUR: TEN FIRST TURNS

Every rider gives it his all in the first turn. Then, he gives about 95 percent to turn two, 90 percent to turn three and so on. Imagine how fast you could go if you thought every turn was the first turn!

Don't fall into the trap of gradually going slower. Give every turn the first-turn treatment. Think holeshot into every turn.

TIP FIVE: IT'S A TEN-SECOND WORLD

It doesn't take a rocket scientist to realize that your typical 15-minute moto breaks down into a few precious seconds of hard-core, head-to-head racing. Most of the 15-minutes is spent chasing, holding your own or marking time. The true-to-life racing boils down to those few second when you are passing or being passed!

If a guy chases you for six laps, you are in no danger of losing your place until he gets close enough to actually make a move. Your whole race could boil down to the ten-seconds in which he tries to pass you. If you defeat him during that ten-second period, he might never make a second attempt. Thus, a savvy rider will marshal all of his psychic power for those ten critical seconds when under attack. If you nullify your opponent's ten-second attack, the remaining 14 minutes and 50 seconds won't seem so tough. Fight when it counts and not until it does.

TIP SIX: DON'T TOUCH THAT GEAR LEVER

Your bike is faster in third gear at half throttle than wide open in second gear. Think about that! The best gear on any motocross bike is third gear. It can be lugged fairly low (with a little clutch work) and revved fairly high. Try to gear your bike so that you are in third gear most of the time.

Don't downshift unless it can't be avoided. Use the clutch to feather the bike out of turns in the highest gear possible. Try to carry speed—not make noise.

TIP SEVEN: WATCH AND WALK

Walking the track has fallen out of favor with lots of young riders, but it can make the difference between winning and losing. It never hurts to walk the track before practice, but it is even more important to try to walk it (and watch it) during the motos that precede yours. Never assume that the line that everyone is using is the best one. The best line may be 20 feet farther to the outside or even through the middle of the big mud hole that everyone is avoiding. How can you tell? Walk the track, kick the dirt, try to coax a rider into using your selected line and think creatively.

TIP EIGHT: WEIGHT THE OUTSIDE PEG

The hardest place to make up time is on flat, hard, dry and slippery turns. Everybody is sliding around, and, in fear of spinning out, they back off the throttle to get traction. But, you can go through flat turns faster if you know the secret—weight the outside peg.

As you enter a flat turn, concentrate on putting weight (pressure) on the outside footpeg. As the bike is leaned into the turn, your body provides counter pressure to the outside of the bike to load the suspension and flex the sidewalls. The best way to weight the outside peg is to place your knee against the tank and press down hard.

TIP NINE: GO FAST IN THE EASY PLACES

Don't fall into the "pace" theory of racing. Too many riders set a good pace and try to hold it. But, unfortunately, pace is contagious and doesn't differentiate between rough straights and smooth straights. Avoid pacing yourself! Go as fast as you can go on the majority of the track and faster than you can go on the easy parts. Burn up the simple parts. Come out hard and go in hot. Push yourself beyond the limits when you aren't

in any danger (to do otherwise would be slow).

What if you burn out because you pushed too hard too soon? So what? Push even harder next week. In time you'll get stronger, burn out later and, eventually, you'll be in good enough shape to go flat out for the whole moto. If you don't pour it on, you'll never get stronger.

TIP TEN: THE CHEAPEST HORSEPOWER AVAILABLE

Before you spend your hard-earned cash on pipes, port jobs and hot ignitions, buy a sprocket. Gearing is the most effective trick known to man. Get your gearing low enough to pull a strong second gear start, tall enough to avoid being tapped out before the end of the longest straight and balanced enough that you are in third gear most of the time.

Most stock gearing is too tall (by at least one tooth and sometimes two). Try to make most of your gearing changes with the rear sprocket.

Here are some gearing tips: (1) You gear a bike "down" by adding teeth to the rear sprocket (or reducing them on the countershaft sprocket). (2) You gear "up" by reducing the number of teeth on the rear sprocket or adding them to the countershaft sprocket (as a rule of thumb, one tooth on the countershaft is equal to 3.5 teeth on the rear).

SLEEP, THE GREAT HEALER back to top

If you are like many of us, you are up late Saturday night working on your bike, even though you need to be up at the crack of dawn on Sunday to make it to the track on time. After all, what is more important than your bike? Did you say,

"Sleep"? Probably not. After all, you're young. You can probably get by on five or six hours a night, right? Don't kid yourself. Believe it or not, lack of sleep may be what's keeping you from reaching your potential on the track.

Motocross requires quick reflexes, stamina and strong muscles. Without enough sleep, you can forget about any of those things. Anyone who is serious about their racing needs to be as deliberate about their sleep schedule as they are about their bike set-up.

SLEEP: THE ULTIMATE RECOVERY PROGRAM

It's so easy to think of sleep as a waste of time. Most people try to get by on the minimum amount so they have time for the important things. But sleep is one of the important things. While asleep, our brains and bodies go into repair mode; cells divide at a faster rate and get rid of waste material, our muscles repair themselves, we fight off infections and our brains sort out and file information that we have learned. Science still has a lot to learn about what happens physiologically while we sleep, but they do know what happens if we don't get enough sleep. People who are sleep deprived experience real mental and physical health problems.

For a motocrosser, lack of sleep could have serious consequences. Studies show that next to alcohol, fatigue is one of the main causes of car accidents. If lack of sleep causes car accidents, just imagine how it can affect you on the track, where instantaneous decision making and quick reflexes are crucial to survival.

Whether you are a professional rider or a weekend warrior, sleep should be a priority. It's not negotiable. When you don't get proper sleep, your reflexes slow down, it takes longer to process information, your sense of humor is impaired and you are susceptible to illness.

HOW MUCH SLEEP IS ENOUGH?

The average person needs approximately eight hours of sleep, but some people need as little as six or as much as 10. The best way to find out how much sleep you really need is to spend a few nights going to bed early enough so that you can sleep until you naturally wake up and feel refreshed. Studies show that people who are dependent on alarm clocks are not getting enough sleep. If you are going to bed at a consistent time each night and giving yourself enough time to sleep, you should wake up naturally. But in order to do this, you may have to sacrifice the evening news or David Letterman.

While it's true that many people can get by with six hours of sleep, athletes who are physically active need more sleep to fully recover from intense workouts. When we work out, our muscles are torn down. Resting allows them to repair themselves and get stronger.

Once you determine how much sleep you need, try to stick to the same schedule throughout the week. It's not just the night before a race that counts, but how much sleep you get during the week. Setting a bedtime for yourself may sound like a wimpy solution, but it won't take long before your body will thank you.

WHAT TO DO IF YOU CAN'T GET TO SLEEP

Most of us have had the frustrating experience of not being able to fall asleep the night before a big race. Luckily, scientists have discovered that missing sleep on the night before an important day does not have detrimental effects—as long as you got plenty of sleep during the week leading up to the race.

However, if you consistently have trouble sleeping, you need

to find out why.

SKIP THE CAFFEINE

Coffee has gone from being a cup in the morning habit to a way of life. For too many people, that afternoon or after-dinner cup of coffee is still having an effect hours later when they are trying to sleep. Avoid caffeine the last six hours before you go to bed.

SAY NO TO THAT NIGHT-CAP

Many people find that a glass of wine or two relaxes them when they are out at a social event, so they think wine is a good sleep-aid. Not true! Although alcohol might help you to fall asleep faster, it keeps you from sleeping deeply and you wake up feeling groggy and tired.

CHANGE YOUR SCHEDULE

Working out in the morning or early afternoon may help you sleep better at night. However, if you work out too late in the afternoon, or work out especially hard, you may have a hard time falling asleep. Exercise increases your metabolism, not only while you are doing it, but for hours afterwards, which doesn't sit well with the body's natural tendency to lower your metabolism while you sleep.

WATCH FOR OVERTRAINING

Not being able to sleep is a classic sign of overtraining. That's why most professional racers don't practice the day before a

race (or if they do, they take it easy). Overtraining can lead to illness and will short-circuit any improvements that you're trying to make.

LEARN TO UNWIND

Stress and anxiety are the most common causes of not being able to fall asleep. That's why the night before a big race you find yourself wandering the house in your jammies. If your mind is going over and over some problem (like how to get a good start), or if you find yourself with a general anxiety every time you go to bed, you need to change that habit. One way to reduce nighttime stress is to establish a nighttime routine. (1) Skip the evening news. Studies have shown that watching TV before bedtime can actually increase the amount of time it takes people to fall asleep. (2) Reading magazines or books will put everybody but Albert Einstein to sleep. (3) Sign off of the internet. Don't spend the time before you go to bed staring at the computer screen (4) Don't balance your checkbook. You don't need the pressure of knowing you have to win the next day to pay for the kid's shoes.

If you still can't fall asleep, consider taking the time to write down what it is that you are worried about. Once you make the list, try not to focus on it any more, but tell yourself that you can worry about it in the morning.

STOP EARLY-MORNING SLEEPLESSNESS

While not being able to fall asleep at night can be a sign of anxiety or stress, waking up early in the morning can be a sign of depression. If you often find yourself not being able to sleep in the morning, you should talk to your doctor. Clinical depression is often something that needs medical attention. Many people don't realize that depression is not just a problem in your head, but it can be caused by physical problems that

may need to be treated.

Of course, if you're depressed because of your poor race results, and your results are bad because you aren't getting enough sleep, you are out of luck!