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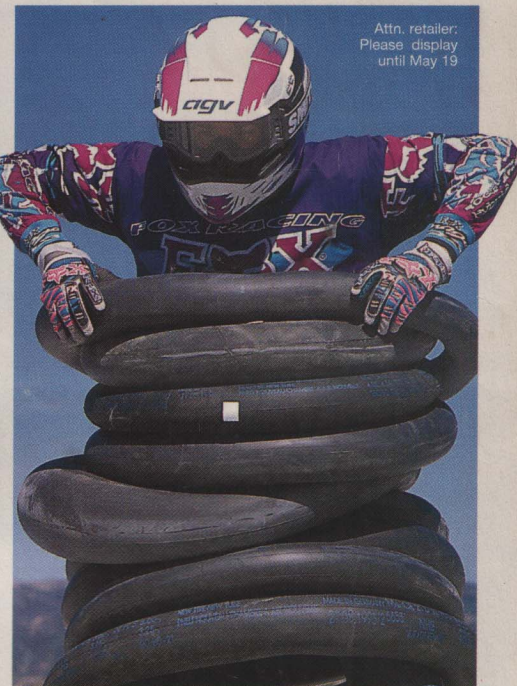
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ON THE COVER: Yes, that's Joe Papa trying to climb out from under an inner tube comparison this month. And yes, those are 500 motocross/off-road bikes leaping into a two-level comparison test, in the same issue as a lightweight enduro bike shootout. And yes, we're looking inside more works bikes. That's us: hopeless yes men. Photos by Joe, Ron and Tim. Color seps by D.I.S.C.

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*I learned a lot about setup and going fast consistently from Ed Lojak, the 14-time off-road National champ. With all of the tough competition these days, though, I doubt a rider who loses his goggles could win a National.*

*Like the Marines, the off-road racer must adapt to his situation to conquer it. Mud tires and massive waterproofing would do me little good in the rocks of Southern California. ►*

# EAST VS. WEST

*Setups & tactics for going fast anywhere*

*By Scott Summers*

**Y**ou can't win a race before it starts, but you can definitely lose a race before it begins. If you go to Arizona, Michigan or even Tennessee for a race, and you are not prepared for conditions in that particular area, you have put yourself at a huge disadvantage, one that all the riding talent in the world may not be able to overcome.

I believe that one of the reasons people get so obsessed with off-road motorcycle racing is that it's one activity that's never boring. They get to play a game where the playing field and climate are never the same from event to event. The competitor must make many decisions. The geographic location of the event affects how those decisions are made. If he has never been to a particular race before, the racer must study the course and conditions to prepare himself and his equipment. What works well at one event may not work at the next.

#### **EAST vs. WESTERN TERRAIN**

There are many, many differences between eastern races and western events. A western race held on private land is a very rare thing, indeed. Part of this is because there are so many idiots wandering around looking for somebody to sue. Part is due to the sheer number of environmental zealots in the west. Most is due to the amount of public-owned land there. When a western promoter is able to secure an event location, it's generally on government land. Various government agencies oversee the use of the property, and often some sort of environmental impact survey is mandatory.

The promoter must appease these agencies and, generally, the agency's definition of a race course is an existing dirt road. Promoters do the best job possible,











# EAST vs. WEST

working within their land limitations, but it's not unusual to be able to drive a truck around the whole course. That's why a westerner's definition of a tight course is so radically different from an easterner's. The only tight places on a western course are usually in stream beds, sand washes or rocky sections (either canyons or ridges).

The western promoter usually lays out longer loops than promoters in the east. This makes fueling the machines a little more difficult because you get fewer chances to do it. A longer lap also makes it harder to memorize the course. On the other hand, a longer lap means less trail congestion and less lapping (or being lapped). The terrain is flat to rolling, usually, with little vegetation or other obstacles to slow the average speed. With so little vegetation, it's easier to shave corners (short-course), so promoters must position checkpoints to deter cheating and make sure the fastest way from checkpoint to checkpoint is on the course. Climate also differs from the east. The west has so little rainfall that dust and dehydration are often problems.

Eastern races are usually held on private land, so loops are usually shorter, and there are more obstacles to slow speed averages. Generally, the dense vegetation makes the marked trail the path of least resistance, so there's less course cutting. Eastern races work you more, physically, while western races are more mental. In the west, you have to maintain a high level of concentration and look farther ahead, so you can react to surprises quickly (or, at least, in time to keep from crashing). In the east, you spend more time looking directly in front of your bike. Rain is more common in the east, so mud is more plentiful. All of the rocks, roots, ruts and muddy hills make it more of an accomplishment to simply negotiate an eastern course.

Your preparation, obviously, will differ from eastern events to those in the west. You must prepare your gear, goggles, body and bike for the specific type of terrain and climate you will encounter at the event.

## TIRE SELECTION

Tires are chosen in the east to provide the best possible traction, while tire choice in the west may be more geared for durability. A three-hour race at 26 mph (a good average for the east) is only 78 miles, while a three-hour race at 42 mph (my average at the Arizona H.S. finale) is 126 miles. Also, at many eastern races, it's easier to maintain a constant speed, so you get less wear from acceleration and braking. Go with whatever tire hooks up best in the east, and don't worry about it. Out west, you have more hard braking and acceleration over rocky sur-



*When a trail gets "tight" in a western event, it's because the club routed it through rocks, ravines or into the mountains. If you do smack vegetation with your hands, it will most likely be some nasty cactus.*

◀ *Since the environmentalists succeeded in removing bog sections from the Blackwater 100, bike setup for Blackwater is more western than in the past. Dave Coombs added miles and miles of rocky trail, which puts initial suspension plushness at a premium.*



# EAST vs. WEST

ular brand of bike if you have never been to that event before.

## SUSPENSION SETUPS

Ruts are uncommon in dry, western conditions but are the norm in the east. I have found that conventional forks have two enemies: deep ruts—which magnify fork flex—and big rocks. If you catch the lower leg on a rock at speed, you stand a good chance of doing a big endo. If you have a choice, a conventional fork works well in the west, while the inverted fork works better in the east.

Many eastern races have a really sticky clay mud that can add up to 40 pounds to your bike. You can crank in your compression adjusters a few clicks to offset this extra weight, but be careful not to go too far. If you close off your damping orifices too much, the oil can heat up quickly, causing fade late in the race. I generally don't change spring rates from race to race, but this is a better alternative than closing off damping passages. For really muddy or rutted events, I decrease sag from 100mm to 80mm. This helps the bike ride higher, so I'm less apt to get stuck in ruts.

I don't have a problem with headshake on my XR600R, so I run the same handlebars for eastern and western events. If your bike headshakes at speed, you should either run wider handlebars (for more leverage) or a steering damper in western conditions. I have noticed more and more competitors using steering dampers back east, especially in rocky races. When setting up your bike for an event, it's important to overcome any shortcomings your bike may have. If it isn't very stable, you can overcome the problem by running maximum wheelbase (adding links to your chain), dropping the forks in your tripleclamps, and/or running a steering damper.

## AIRBOX ATTENTION

A lot of racers will clean their air filter and figure the airbox is ready for the next race. Suppose the race is really dusty or really wet—will the filter last the whole race? I don't want to chance being unprepared for extreme conditions. If the next race is historically muddy, or the weather forecast says rain is in the picture for that area, I will take extra precautions. Tape up any holes you have cut in your airbox and build channels with tape to duct water away from intake areas. Seal the junction between the airbox and its intake boot. You can even build a baffle to keep water from falling onto the filter. The idea is to keep water out while letting as much air in as possible.

If a race is really dusty, as many western races are, you may get a noticeable drop in performance (and mileage) as the filter clogs with dust. Many savvy desert racers use an outer wrap over their filters,



*We have been testing with White Power to get the best settings for western whoops. Although wider handlebars would give me more leverage on the front wheel, it would also throw off my weight distribution. I run the same bars regardless of locale.*

faces, so chunking may become a problem. You may not be able to run the tire that provides the most traction because it won't last the whole race.

Lack of traction in the east is usually caused by wet or frozen ground. Lack of traction in the west is often due to decomposed granite or sand covering hard-packed ground. A soft-terrain tire like the Dunlop 990 or 752, Bridgestone M40 or Metzeler Soft-cross will provide grip on muddy soil, while a hard-terrain tire will be the best choice for the west. Top teams with fast pit crews will select the best tire and change the rear wheel during a western race, but you will probably never see that back east.

## GRABBING GEARS

A really tight or muddy eastern race may demand lower overall gearing. Putting on a smaller front sprocket or larger rear will help you climb steep hills or claw through deep mud easier. It also helps you pick your way through really tight sections with less clutch slippage. Be careful not to go overboard, or you might drastically increase fuel consumption and engine wear. Higher speeds of western events require gearing up (a larger front or smaller rear sprocket). Your motor may work too hard to maintain the higher speeds, so it will consume more fuel. Mileage may be critical, and gearing up could mean the difference between winning and running out of fuel. You must be careful not to gear too high, or your motor may not be able to pull the taller gearing. It pays to look at what gearing others are running on your partic-



*Nationals in Texas, Oklahoma and Missouri have high-speed western sections interspersed with trees, vines and lots of rocks. Check out the radiator guards on Rodney Smith's ISDE Qualifier bike; it would take a really sharp stick to cause a DNF!*



*Even though the weather was brisk at the '93 Tulsa Qualifier, all of the top riders used drinking systems to fight dehydration. Regardless of heat and humidity, athletes must replenish fluids lost through perspiration and respiration.*



or cover the airbox inlets with women's nylon hose. I took this a step further and made an outer filter wrap that is attached to a zip-tie. This way, while I'm riding, I can reach down and pull the outer wrap off, exposing a fresh, clean filter. Not only am I keeping performance at a maximum, I won't lose any time in the pits, either.

#### GOGGLE PREPARATION

If you can't see, you can't win, and goggle preparation varies from west to east. At dusty western events, I treat the goggle foam with baby oil, which helps filter fine dust and keeps the inner lens surface clean. Endust works well at keeping dust from accumulating on the outside of the lens. If it's really hot (no matter where the race is), I use a women's panty liner held in place over my eyebrows by a sweat band. Don't laugh; they are designed to absorb! A sweat band alone will become saturated in a long, hot race.

Vision can become an even bigger problem in some eastern events. Rain and cold weather can cause fogging, and most riders use some combination of Roll-offs, tear-offs, fog inhibitors or simply stopping and switching goggles repeatedly. No-fog cloths are especially popular in the humid east. Be sure to prepare more goggles than you will actually need (one per lap).

#### GEAR & BODY PREPPING

Heat and humidity, or a lack of humidity, can affect your body's performance in a long race. It's very important to hydrate during physical activity, and the Camelbak drinking system allows me to go three hours without worrying about running out of water. The Camelbak is a product that goes beyond its intended purpose. It's kind of like wearing an airbag on your spine that can absorb a bad blow and burst on impact, rather than transmitting the blow to your body. As long as I have prepared my Oakleys well and keep hydrated, I only have to stop once in a race, usually.

Some western races have rules setting a speed limit in the pits and stating that you must kill your engine when refueling. Restarting the bike may cost me some time, so I avoid the pits altogether. I will run a five-gallon fuel tank and go the whole distance without pitting. These western events aren't very technical, so I can get away with the extra weight of the fuel. In an eastern event, that extra 15 pounds would make the bike too hard to ride fast.

There are a few tricks of the trade that riders use to solve problems that may not exist anywhere else. For instance, Arizonians have to deal with a thing called jumping cactus. When you hit a jumping cactus, it shoots small, round, porcupine-looking bits of cactus everywhere. The locals all tape hair picks (also known as cake rakes) to their bikes and use them to remove the cacti. I learned the hard way that, if you attempt to remove the cactus with your hands, they just embed themselves into your hands.

In many eastern races, the woods are so



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# EAST vs. WEST

tight that it's common to brush the trees with your shoulders. Eastern racers are more apt to use chest protectors with ample shoulder protection. In Tennessee and bordering states, there's a small green, thorny vine that blends in with all of the other vegetation. This vine has brought blood from the necks of many off-road racers. They are so rigid that the vines won't break when you get tangled. As it scrapes across your neck, the spines act like barbed wire on soft flesh. Racers use various methods to combat Dracula Vines; I use a sleeve cut from an old jersey. It's held in place by the chin strap and keeps the barbs from digging down to flesh.

In the upper peninsula of Michigan, bugs are a nightmare. The Michigan ISDE Qualifier is the only race where I have used up my Roll-offs because of bugs splattering on the lens. Here, the locals use an Avon product called Skin So Soft to ward off the bloodthirsty mosquitoes. We doubt that Avon meant for this product to be a mosquito repellent, but it works. Also, savvy riders in Michigan know not to arrive at checks too early, because it means more feeding time for the mosquitoes. Like the Marines, you must adapt to conquer.

## THE MOMENT OF TRUTH

You have prepared yourself and your equipment for the race and walked the track. You have determined the course length and figured out when you will pit. You are prepared for the weather and the conditions. You may not win the race on the start, but you can lose it if you are too cautious or not cautious enough.

Dusty western races don't provide many opportunities to pass people, so a good start is crucial. Even if you are much faster than the guy making all that dust, you may have to take a big chance to make the pass. I don't like to take chances. Walking the track beforehand will show you places where you can pass safely. Dust usually isn't as bad in sandwashes because there's less soil to get kicked up and the water table will be closest to the surface in low-lying areas. Try to set up your passes for these sections.

The problem with this is the No-See-Ums, which are round rocks up to the size of a basketball. These rocks are the reason desert racers go through rims like easterners use tear-offs. Whoops and natural camouflage (being the same color as the surrounding sand) disguise No-See-Ums, making them virtually impossible to detect. I would rather get a good start and lead the whole race, even though this creates a risk of overshooting corners or getting lost.

Course markings at western events can be sparse, since there are few trees to place course markings to. Usually, these



*Some ideas work well everywhere. You will see pipe protectors, hand guards, skid plates, steering dampers and intermediate-terrain tires on both coasts and everywhere in between.*

events are marked by painting rocks and tying ribbon to bushes. When you are scanning terrain ahead, you have to train your eyes to look at a lower level for course markings than eastern events. Promoters sometimes have to drive stakes into the ground to mark corners, and someone can knock these arrows down in early laps. When this happens, you have to follow existing tracks.

The start of an eastern race isn't as critical. In fact, you may not want to lead the early laps of an eastern race. Leaves covering the trail can also hide fallen logs, rocks and erosion, which can only be detected by someone riding over them. Let someone else lead the first lap, and key off of his mistakes. The second lap is when woods racers really start to twist it, because the other 300 or so riders have uncovered all of the obstacles.

Because the loops are so short in the east, passing is much more prevalent. Fast riders will begin lapping people as early as their second lap! At the end of an eastern run, you may have lapped or been lapped hundreds of times. In really tight sections, slower riders hold up those behind them. These bottlenecks can work for you or against you, depending on where the competition is in relation to the bottleneck. Mistakes are more common in the east (there are more obstacles), so it's important not to follow too closely and to always take an alternate route if one presents itself. It's a fine line; you have to be close enough to capitalize on a mistake but not close enough to become involved in that mistake.

Experience will tell you where that fine line lays. Remember that the conditions for any race are equal for everyone, regardless of the event location. The ones who do well are the people who best prepare for those conditions and who come up with the best race strategy. □