# Efficient Farming

THE CARE OF HORSES' TEETH.

When a horse is thin, hidebound and "hard to keep," no matter how well fed, think of teeth troubles first of all. Of course, worms may be the cause, and sometimes after a severe spell of sickness, such as distemper or influenza, or even colic, the animal may remain thin and in a thriftless condition.

Many stock owners think young horses have nothing wrong with their teeth. This is a great mistake, as more trouble is found in animals between four and seven than at any other age. If a horse at this period of life is given a good examination by a competent veterinarian, often nothing more is needed for some years.

There are three common dental irregularities: First, sharp points, found on the inside of the lower grinders, which may cause ulcers on the tongue, and those on the outside edges of the upper grinders, which cut into the cheeks.

Second, unshed milk teeth, which may interfere with the normal position of the permanent ones. On the back teeth, these are known as caps, and often wedge in between two grinders.

Third, wolf teeth, which are small, unnecessary teeth, usually found just in front of the first upper grinder. Sometimes a wolf tooth is only as big as a grain of rice, and at other times may be as large as a person's front tooth, with a longer root.

In addition to these, we find long teeth, caused by the tooth in opposition wearing down faster than the others, which permits an uninterrupted growth of the other grinder. It is not unusual to find a tooth of this kind sticking up over an inch above its mates. This, in turn, wears a large hole in the tooth it grinds against, and we have an ulcerated condition that may involve the whole jaw bone. When you suspect anything the matter in a horse's mouth, you can find out a great deal by using a flashlight. First of all, be very gentle with the animal, and then grasp the tongue with the left hand. Pull the tongue out to the left side of the face and insert the flashlight in the right side of the jaw, just in front of the grinders and back of the tushes, if the animal is a horse—mares usually do not have these canine teeth or tushes.

You can now examine the right side of the mouth very easily. As stated, look at the inside corners of the lower grinders and the outside edges of the upper molars. If they look as jagged as the Rocky Mountains, your animal has sharp points.

If an extra little tooth snuggles up in front of the first upper molar, it is a wolf tooth. Then shift the tongue to the right side and insert the flashlight in the left side of the face, and examine the left back teeth. Then look at the front teeth, taking care not to overlook any small unshed milk teeth.

A horse has forty teeth, or forty-two with wolf teeth. There are six lower nippers, six upper nippers, twelve lower molars and twelve upper grinders, with four canines or tushes. A mare has thirty-six, the four canines usually being absent.

Wolf teeth are common to both sexes; they usually come in pairs.

A colt has twenty-four milk teeth. It has the same number of nippers or front teeth as a full grown horse, but only half the number of molars—six above and six below, or three in each jaw. An April colt will have a full set of milk teeth to eat his Christmas dinner with, and keeps this set until he is about two years of age. Then he begins to cut teeth in earnest, and when he is between five and six is fully equipped with a brand new set of permanent ones.

Fully half of the colics and acute indigestions arise from imperfect teeth and poorly masticated food. Fixing the teeth is called floating, and is performed with a filelike instrument called a float. It is remarkable how quickly a horse will respond to having his teeth put in good shape.

# For Home and Country

WOMEN IN AGRICULTURE.

Fifty years ago there were practically only three professions open to women—to teach school, to teach music or to get married. Nowadays all that is changed: there is really no door that is closed; we have only to pick and choose, for we may do what we desire to do, and it is surprising how many women have chosen agriculture. These women are working with chickens, with bees, with apple trees, with flowers, with dairy cows, with small fruits—indeed the list is almost endless.

To unmarried women and girls these occupations are often a way out from city life which has become distasteful. For the farmer's daughter, this business of income-earning at home is a blessing—she has all the joys of home life and still is tasting the sweets of independence. One of our short course girls, who helps her father in the orchard, says: "Earn your own money, girls—it's a lot nicer than asking Dad." To the farmer's wife "butter and egg money" have always meant that most precious possession, "my own money." Usually it is spent at the store for gingham for the children's dresses or shirting for boys' shirts, or if everyone else is looked after, possibly shoes for Mother. Still, it has been her own money, and she spent it as she wanted to.

Now, all through the country we see a quickening of the activities of land women. In one section near Toronto, we see two nurses adventuring gaily with chickens, lacking experience, lacking capital, but making a success of it, since they abundantly possess grit, backbone and pride. These women take all the help offered by their government, and every year are growing in knowledge and skill.

In another part of Ontario we find a widow left with a farm and five children doing what? Taking the course in agriculture so that she may make a successful farmer and home maker for her sons. Not young in years, but young with the spirit of eternal youth, is this questing after knowledge.

Another small farm, seven hundred miles away, is cared for by city dwellers. Each banker's holiday a chicken, fresh eggs, fresh butter, a jar of marmalade or jam, cream and often home-made bread. Everything is raised or made on the farm. Isn't this an experiment in agriculture worth trying?

On another farm, where there is an invalid husband, the wife out of sheer necessity has built up a business of canning, jelly making, pickles, jams, and preserves. There was an abundance of small fruit on the farm and this has been carefully tended and cared for.

In a section beside one of our summer resorts, a farmer is making an excellent income from growing and selling vegetables to the summer residents. His young daughter, aged sixteen, is also adding to her income by raising and selling flowers to these same delighted cottagers.

And so we might go on endlessly. These "new women" in agriculture are blazing the trail for young Canada, and since they are in the work because of love for it, they are finding life "a great adventure and a glorious thing."—Mrs. H. M. Aitken, Burton.

A PIECE OF REAL NEIGHBORING.

We wonder if any organization ever had a more neighborly piece of work to its credit than this: The Institutes of South Simcoe were running a series of inter-Institute debates last winter. When Bond Head came to Tottenham, they had a debate, a musical program, a short play by the Tottenham Institute and refreshments. The proceeds amounted to $16, with limited expenses to either organization. Three days previous, a woman living in the country near Tottenham had lost twin babies and her own life was hanging in the balance. The Tottenham Institute women, hearing of it, immediately put in a trained nurse. The Bond Head women, learning that Tottenham was using its share of the proceeds from the evening for this purpose, phoned them the next day asking to have their share turned over to the same cause. The Secretary says, "We had a nice letter from the doctor in charge, saying it was the means of saving a life."

WELCOMING THE NEW BRANCH.

In North Hastings when a new branch was organized at Rylstone last winter, the district president sent the news to every other branch in the district, and each branch secretary sent a letter of welcome to the new sister. At the time of this organization meeting, the roads were about as bad as they have ever been in the winter, but a sleighload of nine women drove out from Bonarlaw to help with the organization and they say they found "splendid material" waiting to be organized—twenty-one members for a beginning.

## Re-gluing Joints.

It is sometimes necessary to re-glue joints that have become loosened or come apart, but a perfect repair cannot be made until every vestige of the old hard glue has been removed. Scraping alone will not accomplish the task with the desired degree of success.

Hot water and a good stiff brush are the most effective means of putting the surfaces in the proper condition for rejoining. Needless to say, the wood should be perfectly dry before applying the glue and making the new joint.

While the tall maid is stooping, the little one hath swept the house.

The luxurious want many things, the covetous all things.

—AND THE WORST IS YET TO COME

# Caring for the Defective Child

By Hilda Richmond

The idea of caring for the defective child outside the home is of recent origin. The old idea that the mother of such a child should give to it her whole life in loving and sympathetic care is so deep-rooted in the human mind, that grave mistakes have been made dealing with children who at birth, or following an illness or accident, are not normal, and can not be treated in the home as healthy, noisy, but sane boys and girls are treated. In every county there are children who are deaf and dumb, as well as those who are hopelessly feeble-minded, blind, crippled or otherwise defective, and the problem of caring for them affects not only the home in which such children are found but the community at large. The parents of a defective child should leave no stone unturned to see that the child get a proper examination and the opinion of a competent physician as to whether or not the case is hopeless. If the parents can not afford the expense of an examination, the local doctor can arrange to have the work done by some specialist connected with a hospital in a nearby city. Neither false pride nor the desire to conceal such defects should prevent parents from taking advantage of such help. Often it has happened that some operation or treatment will remedy a defect, and surely every child has a right to a fair chance from the very first moment of life.

If it is found that the defect is incurable, and the child must remain blind or deaf or crippled for life—should efforts to help the victim cease? Certainly not. No matter what anguish it causes the parents to part with the little one, the child should be early placed in a state or private institution for training and discipline.

HUMORING THE UNFORTUNATE CHILD.

The average home is not the best place in which to train and instruct the unfortunate child; for while the parents may be able to pay for training, the tendency to spoil the child is too great. The mother who through mistaken kindness makes a domestic tyrant of the unfortunate little one, is not only sowing to the whirlwind for later years, but is shutting out all possibility of such children through wise discipline and careful training.

A man who took his deaf and dumb daughter to an institution only after his wife's health had broken, was amazed a few months later to find the naughty little girl transformed into a healthy, intelligent, happy being, and he had hard work persuading her to accompany him to the door of the schoolroom to say good-bye, as she feared he would take her home. That girl grew up to be a fine housekeeper, a good scholar, a happy intelligent woman, able to speak after a long course in lip reading, and as nearly able to lead a normal life as her defect permitted. Had she remained at home she would have been a burden to herself and her family all her life. It is not kindness but cruelty to deprive such children of training, discipline and schooling.

THE MOTHER'S SACRIFICE.

But if the child is incapable of training? If the poor little being is doomed to idiocy or invalidism—shall the mother sacrifice all her life to care for it, or shall that kind of a child be cared for in an institution? That is also a question which the trained doctor should answer.

If the parents can afford to pay an attendant, or even have occasional help with the child, perhaps the home life will not weigh too heavy upon the mother, but the presence of such a child in the home, particularly one who can get about and who has to be constantly watched, is a drain on the nerve and physical force of the mother that few can understand. Many a woman has laid down her life in such a struggle and it is a debatable question in many minds whether or not the defective child gets enough benefit from the sacrifice to warrant it. Of course it is a beautiful idea—that of giving life and all its possibilities, in an effort to care for an unfortunate child—but there are those who insist that the institution is better equipped to care for such cases and that the sacrifice of the mother is worse than useless.

But there is another side to the case and one seldom mentioned, and that is the responsibility the parents owe to the normal children in the home. I know it is a delicate subject in many homes, and the rights of the normal children are often ignored in pouring out love and sympathy upon the one who is defective, but that is not as it should be.

EFFECT ON NORMAL CHILDREN.

One little girl who was shamed and humiliated day after day by the irresponsible actions of a feeble-minded brother was roundly scolded by her mother. The little girl was saddened by the scolding, but she plucked up sufficient courage to say: "Mother, I'm your little girl as much as Freddy is your little boy, but you never seem to think so." That remark set the mother to thinking and she came to see that the vicious, defective child was not only not restrained by either parent, but also that the other children had absolutely no rights that he was obliged to respect. She considered it cruel to shut him away from the others, so that they were helpless and afraid in his presence, while at the same time they could indulge in no play, had no playmates and no place to go anywhere without being obliged to take him along. All at once the mother saw the injustice of the case, and she consented to place the child in an institution. "Freddy" is now learning that other children have rights which he must respect.

The future of the defective must also be considered. Who will take the child when the mother wears herself out in caring for him? Will it be possible to put him in an institution at the age of twenty or thirty as easily as when a child? Is it true that children who are feeble-minded, or blind, or deaf and dumb are happier with their own kind than with normal beings? Will the defective grow up to be a menace morally to the other children in the home and to the community? All these and many more considerations must enter into the disposition of the defective child, and not merely sympathy and love and tenderness toward the helpless.

Since no family circle can declare itself absolutely free from the danger that such a child may be born into the home, or that illness may result in defect, it is the duty of all good citizens to help make our public institutions for unfortunates the best that money and skill can provide. We who are strong and well owe to all defectives the chance to live sheltered, quiet lives and the highest possible development obtainable for them, with protection to the community at large from their presence.

## HOGS.

Scours in young pigs take big toll and unless checked when it first appears is liable to spread through the herd with disastrous results.

Overfeeding the sow, a too rich ration and cold, damp pens, are the most common causes of this malady. Of course the obvious thing to do is to avoid the cause, but even with good care and careful feeding scours will appear. When it does a teaspoonful of sulphur in the sow's feed for a day or two will usually correct the trouble in the little fellows, but some farmers say this remedy will dry up the sow.

Those who are afraid of this may obtain the same result by giving the pig about as much sulphur as will lie on the end of a penknife blade.

If the case is acute a teaspoonful of castor oil in the morning to each pig and the sulphur treatment at night are mighty good.

## Apple Recipes.

The charge is sometimes made that the Canadian people do not fully appreciate the excellence of their own fruit. In competition with other countries in the markets of the world, the Canadian apple stands high. Indeed, the Canadian exhibit of fruit at the Imperial exhibition recently opened in London, is attracting unusual attention and favorable comment. While it is regarded as important for the prosperity of the Canadian orchard industry that we have a good export trade, it would seem inconsistent for our people to continue to import fruit of the kinds that are available at home. Everyone, it is true, is not a lover of apples eaten out of the hand, but there are few who do not relish cooked fruits prepared and served according to the best practices. With a view to securing a greater home consumption of Canadian apples, which is understood to have a salutary effect upon the health, the Department of Agriculture at Ottawa has issued in Bulletin No. 35 a series of recipes for their use in various ways. The bulletin, available at the Publications Branch, names the apples that are specially good for cooking, for dessert. Apples are also classified according to the season in which they are best for use.

## Closing a Large Pipe With Air.

When a drain, large water or natural gas or other supply pipe requires to be disconnected it is often difficult to stop the flow by plugging, capping or otherwise stopping the pipe. Plumbers have a stunt called "bagging" that can be brought into use as follows:

Cut out a section of small diameter inner tube about eighteen inches long with the valve about six inches from one end. Vulcanize the end farthest from the valve and force a round stick covered with tire tape into the opening next to the valve and bind on solidly with cord.

When a pipe line is opened force the free end of the inner tube in as far as the valve, and pump air into it until it swells sufficiently tight to completely close the pipe and hold back any flow that might occur.

This stunt is valuable when opening tile drains, watertank supply pipes and any large piping about a farm where plumber's help is at a premium.

## Milk Preservative.

Investigational work carried out by the Depart of Bacteriology, O.A.C., that is of special interest to the cheesemakers and managers of factories, was concluded during the past year. Many factory managers had experienced trouble in keeping the composite samples of milk in good condition for the period required by the Dairy Standards Act. The result of the O.A.C. Bacteriological Dept. investigation shows that not less than six grains of corrosive sublimate is required to keep a one-pint sample in good condition for forty days. This amount should be used if the butter fat tests are made either once or twice a month.

## Gelatin and Bacteria.

With the great increase in the consumption of ice cream and the development of the ice cream manufacturing business, various schemes have been evolved to take care of the demand in a way profitable to those manufacturing selling this food. In making examination of various samples of gelatin sent to the Bacteriology Department of the Ontario Agricultural College some samples were found to have a bacterial content as high as 960,000 per gram. Wholesome ice cream cannot be made if low grade gelatin is used in its preparation.

## Refitting Connecting Rods.

In some automobile engines the connecting rods are offset to the centre of the bearing and in refitting them great care should be observed that the offset is on the right side. Otherwise they may be installed backward or just the opposite to what they should be. In which case the connecting rod will be hard and great pressure placed on the bearings, so that they will burn out even though an ample supply of oil is present. This may happen after a careless assembling job.—H. E.

# The Sunday School Lesson

JUNE 15

**The Return and the Rebuilding of the Temple, Ezra, che. 1, 3 to 6. Golden Text—Comfort ye, comfort ye my people, saith your God.—Isaith 40: 1.**

Fifty years passed and some of the exiles came back again. It was a long and wearisome journey from Babylon northward and westward and southward again, nearly a thousand miles about the great north Arabian wilderness, to the homeland. For old people and for the sick it must have been an impossible journey. They and those who cared for them, the members of their families who could not be separated from them, remained in Babylonia. Others whose business had become established there, or who had become attached to that country and its ways, chose also to remain or postponed their return. And so it was that Jewish communities became permanent in Babylon.

The Babylonian empire fell before the Persian conqueror Cyrus. And Babylon was taken by him in B.C. 538. Cyrus had the gifts both of a soldier and a statesman. From his original principality of Aushan, on the north side of the Persian gulf, he came to the throne of Media, and then extended his empire to Asia Minor and to the borders of Egypt. This vast region, from Persia to the Mediterranean Sea, including many small nations, he organized in provinces, with a strongly centralized government. He made it his policy to conciliate and bind together in bonds of goodwill all these provinces, and bestowed favors liberally. It was in pursuance of this policy that he issued his decree permitting the return of the Jews to Palestine.

The great prophet of the exile whose words are preserved in Isaiah chs. 40-55, predicted the conquests of Cyrus, the fall of Babylon, into his hands, and the return of the exiles. See Isa. 41: 2, 3, 25; 44:24 to 45:7 48:12-15. He believed that the discipline of the exile was preparing Israel, as Jehovah's servant, to render a great service to mankind, and that it was with this end in view that God had called Cyrus, sent him upon his victorious career, and commissioned him to set free the captive people and rebuild Jerusalem. Thus, he declared, Israel restored would "bring forth judgment to the Gentiles," would "set judgment in the earth," and that God would give his servant Israel "for a light to the Gentiles" and for "salvation unto the end of the earth," Isa. 42:1-6; 49:6. The story told in the first chapters of the book of Ezra, as seen from the point of view of the inspired prophet, is to be understood not simply as the story of a people's restoration, but as a step toward the fulfilment of the gracious purpose of God for the world's redemption. For "The Lord hath made bare his holy arm in the eyes of all the nations; and all the ends of the earth shall see the salvation of our God."

Ezra 2:8-13. *The second year of their coming*, was, probably, the year B.C. 536. The altar had been built some months earlier and active steps were now taken to begin the rebuilding of the temple. Zerubbabel was the grandson of Jehoiachin, the king of Judah who was taken captive to Babylon in B.C. 597, and may be identical with Sheshbazzar who is mentioned in Ezra 1:8 as a leader of the returning exiles and a prince of Judah, and in 5:14 as governor. Jeshua was the chief priest. The Levites were regarded at this time as a religious order of a lower rank than the priests who were of the same tribe but claimed the distinction of being descendants of Aaron. They were now appointed overseers of the work of building. The Jeshua mentioned in v. 9 was not the priest, but was, like Kadmiel, head of one of the families of the Levites (see 2:40, where they are both called "children of Hodavjah," and Neh. 10:9). The *sons of Henadad* are also mentioned in Neh. 10:9, 10. The foundation stones were laid to the accompaniment of music and songs of praise. The *ordinance of David* is probably that referred to in 1 Chron. 6:31. The words of praise of v. 11 appear in the song attributed to David in 1 Chron. 16: 7-36, and in Psalms 106, 107, 118 and 136.

The weeping of the old men, who remembered the magnificence of the old temple of Solomon was expressive both of grief and joy. A similar incident is referred to in the prophecy of Haggai, written sixteen years later, when after a long interval, the building was resumed and carried to completion, Hag. 2:3.

Ch. 6: 14, 15. The opposition of their neighbors, whose suspiciously friendly advances had been rejected by the Jews, no doubt with good reason, led to the abandonment of the effort to rebuild the temple in B.C. 536. For sixteen years nothing was done. Then, aroused by the prophets Haggai and Zechariah, in the year B.C. 520, they began again. Four years work were required to finish. The decree of Cyrus was supplemented by that of Darius, who began to reign over Persia in B.C. 522, but the mention of Artaxerxes is puzzling, for he did not come to the throne until B.C. 464, fifty-two years later. See the whole story of rebuilding as told in chs. 5 and 6.

APPLICATION.

Let us endeavor to see the significance of the return from captivity.

1. It was the triumphant vindication of those prophets that Israel's great men, like Jeremiah, Ezekiel and others had made to her. The Jews had not listened any too carefully to their mighty prophet-teachers when they declared that one day the Lord would bring back his scattered sheep and that they would find pasture on the mountains of Judah; but when the all-conquering Cyrus threatened Babylon, they began to believe that after all, the prophets might be right. Their prophets hailed the conqueror as the "servant" of Jehovah.

2. As already indicated, the return meant that the long, hard period of purification and discipline was at an end. Israel was now to enter on a new life. The school period was over, and the people looked forward with hunting hearts to the world in which they should now play their great part. It was a time of joy.

3. The unknown prophet of the exile preached a religion that was far rather a divinier thing than anything associated with the old Temple. If only the people had risen to his high level when they returned to Palestine! To declare that that the home-going meant that Israel now had her great second charge. She should become the missionary people of the world. Israel's religion henceforth to live, not for itself, but for the spread of prayer for from Israel should arise a new humanity.

4. But whether they forgot or not, in any event they started off to their new heritage in the right way. Soon after reaching Jerusalem, they erected an altar in the sight of the great brazen altar in Solomon's Temple. And to the new epoch was begun with religious sacrifices and ceremonies. Then confronted with a note that concerting, "the foundation of the Lord was not yet laid," 3:6. There follows in the book, an account of the laying of the foundation of the temple, the narrative, Ezra 3:12, Haggai settled down over from whom so much was at last Haggai, a layman, action, stirred the people and the Temple was completed twenty years had passed. Except was achieved. Leadership of Haggai was most importance at this the student should read little book of Haggai at This prophet rebuked the their supine selfishness and urged them to set to erection of the Temple. was far more than a as a singer with his face future. Listen to this "yet more glorious day." people responded to his demand that they should extraordinary privilege.

## Lubricating Hint.

An auto stopped in front of a garage, and to my query as to why the driver did not apply grease to the car's bearings that had hot it was really smoking. That he had no grease with him and could not secure any until the next garage, five miles

...ofact was pointed out to the driver did not know of ever ...t the hub caps of the front ...y an excess of grease from an emergency, the grease ...a dry bearing may be ... The farmer and owner ...ell to remember this little

## Breeding Stations.

...C. Poultry Department ... over the province 20 ...ations with 12,786 ... ...rment supplied 813 pen ...erels for these stations ... breeding season. The Poultry Extension work has ... a great improvement ... over the previous

## Insulating.

...ation carried out by the ...partment, O.A.C., to ... relative insulating ... ...nt materials that are ...d, gave the following re... ...aterials arranged in order 1. Sphagnum moss, 2. new ...flax fibre, 4. old felt ...l cork, 6. cut straw, 7. saw ...avings, 9. excelsior, 10. wood ... Sphagnum moss ... highly efficient.

...on the Golden Score.

...ing "Five pounds ...

## Bedtime Stories

### The Difference.

...d, if you'd ... ...ed Hope, ...

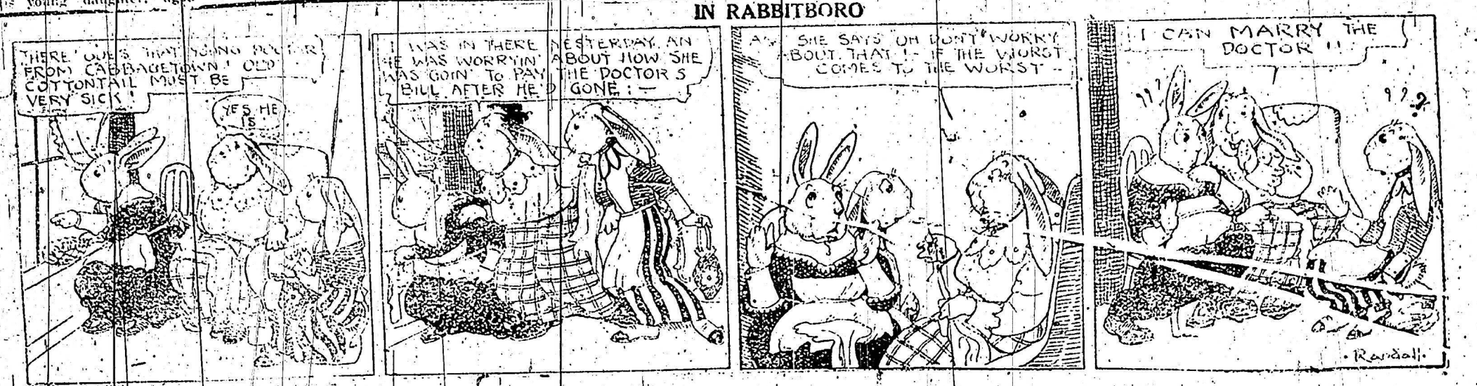
...ing! I am?

...ing! you will ...

...than I ...ly to fail at whatever I try ... doubtless he will! Why, I'm ...ost at the start! ...king of failure why down in ...his heart!)

...ave I can do ... ...should risk ...work is a pleasure ... ...it a task! ...right about it! ... White. ...ou I'll have ... ...right!" ...doubtless he will! Why, I'm ...ron at the ... ...inking success from the depths ...of his heart!)

IN RABBITBORO





GEYS
every meal
mouth and
digestion.
that over-
ing and acid
t-i-n-g flavor
the craving for
is double
the benefit and
it provides.
Purity
WRIGLEY'S
SPEARMINT
R23
The flavor lasts